HCD-GRX5/RX66

SERVICE MANUAL

US Model
Canadian Model
HCD-RX66
E Model
Australian Model
HCD-GRX5

Photo: HCD-RX66

HCD-GRX5/RX66 is the Amplifier, CD player, Tape Deck and Tuner section in MHC-GRX5/RX66.

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CD Section	Model Name Using Similar Mechanism	HCD-H991AV
	CD Mechanism Type	CDM38L-5BD29AL/ CDM38LH-5BD29AL
	Base Unit Type	BU-5BD29AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	TCM-230AWR1/ 230PWR1

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS:
(U.S.A. model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from 70 - 20,000 Hz; rates 60 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Canadian model:
Continuous RMS power output (reference)
60 + 60 watts
(6 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.07%
(6 ohms at 1 kHz, 45 W)

Other models:
The following measured at AC 110, 220 V 50/60 Hz
DIN power output (rated) 50 + 50 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
65 + 65 watts
(6 ohms at 1 kHz, 10% THD)
The following measured at AC 120, 240 V 50/60 Hz
DIN power output (rated) 60 + 60 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
75 + 75 watts
(6 ohms at 1 kHz, 10% THD)
Peak music power output (reference)
1000 watts

Inputs
MD/VIDEO IN: (phono jacks) voltage 450 mV, impedance 47 kilohms
MIX MIC: (phone jack) sensitivity 1 mV, impedance 10 kilohms

– Continued on next page –

MINI Hi-Fi COMPONENT SYSTEM

MICROFILM

SONY

Specifications (continued)

Outputs

MD/VIDEO OUT: (phono jacks)	voltage 250 mV, impedance 1 kilohms
PHONES: (stereo phone jack)	accepts headphones of 8 ohms or more
SPEAKER:	accepts impedance of 6 to 16 ohms
SUPER WOOFER:	Voltage 1 V, impedance 1 kilohm

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output	Max. 44.6 µW* *This output is the value measured at distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response	2 Hz - 20 kHz (±0.5 dB)
Wavelength	780 -790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength	600 nm
Output Level	-18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	40 - 13,000 Hz (±3 dB), using Sony TYPE I cassette 40 - 14,000 Hz (±3 dB), using Sony TYPE II cassette
Wow and flutter	±0.15% W.Peak (IEC) 0.1% W.RMS (NAB) ±0.2% W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 - 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range

North American models:	530 - 1,710 kHz (with the interval set at 10 kHz) 531 - 1,710 kHz (with the interval set at 9 kHz)

Middle Eastern models:

MW:	531 - 1,602 kHz (with the interval set at 9 kHz)
SW:	5.95 - 17.90 MHz (with the interval set at 5 kHz)

Other models:

MW:	531 - 1,602 kHz (with the interval set at 9 kHz) 530 - 1,710 kHz (with the interval set at 10 kHz)
SW:	5.95 - 17.90 MHz (with the interval set at 5 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements

North American models:	120 V AC, 60 Hz
Mexican model:	120 V AC, 50/60 Hz
Australian, and Israel models:	220 - 240 V AC, 50/60 Hz
Thai model:	220 - 240 V AC, 50/60 Hz
Other models:	110 - 120 V or 220 - 240 V AC, 50/60 Hz

Power consumption

U.S.A. model:	140 watts
Canadian model:	120 watts
Other models:	140 watts
Dimensions (w/h/d)	Approx. 280 × 335 × 380 mm ($11^1/_8 \times 13^1/_8 \times 15$ in.)

Mass

U.S.A. model:	Approx. 8.8 kg (19 lbs. 6 oz.)
Canadian model:	Approx. 8.4 kg (18 lbs. 8 oz.)
Other models:	Approx. 9.4 kg (20 lbs. 12 oz.)
Supplied accessories:	AM loop antenna (1) Remote RM-SR5 (1) Batteries (2) FM lead antenna (1) Speaker cords (2) Front speaker pads (8)

Design and specifications are subject to change without notice.

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

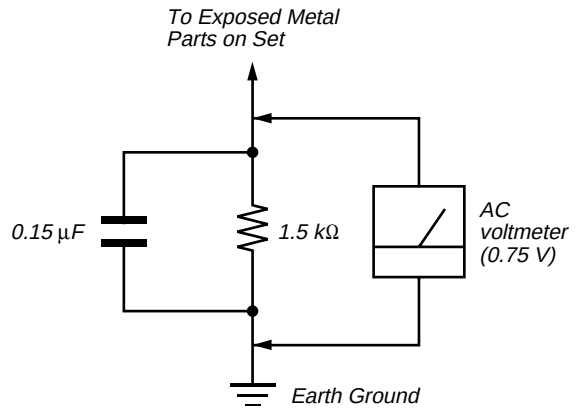
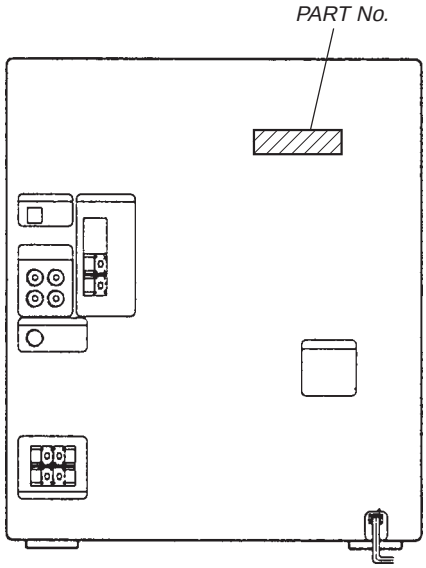


Fig. A. Using an AC voltmeter to check AC leakage.

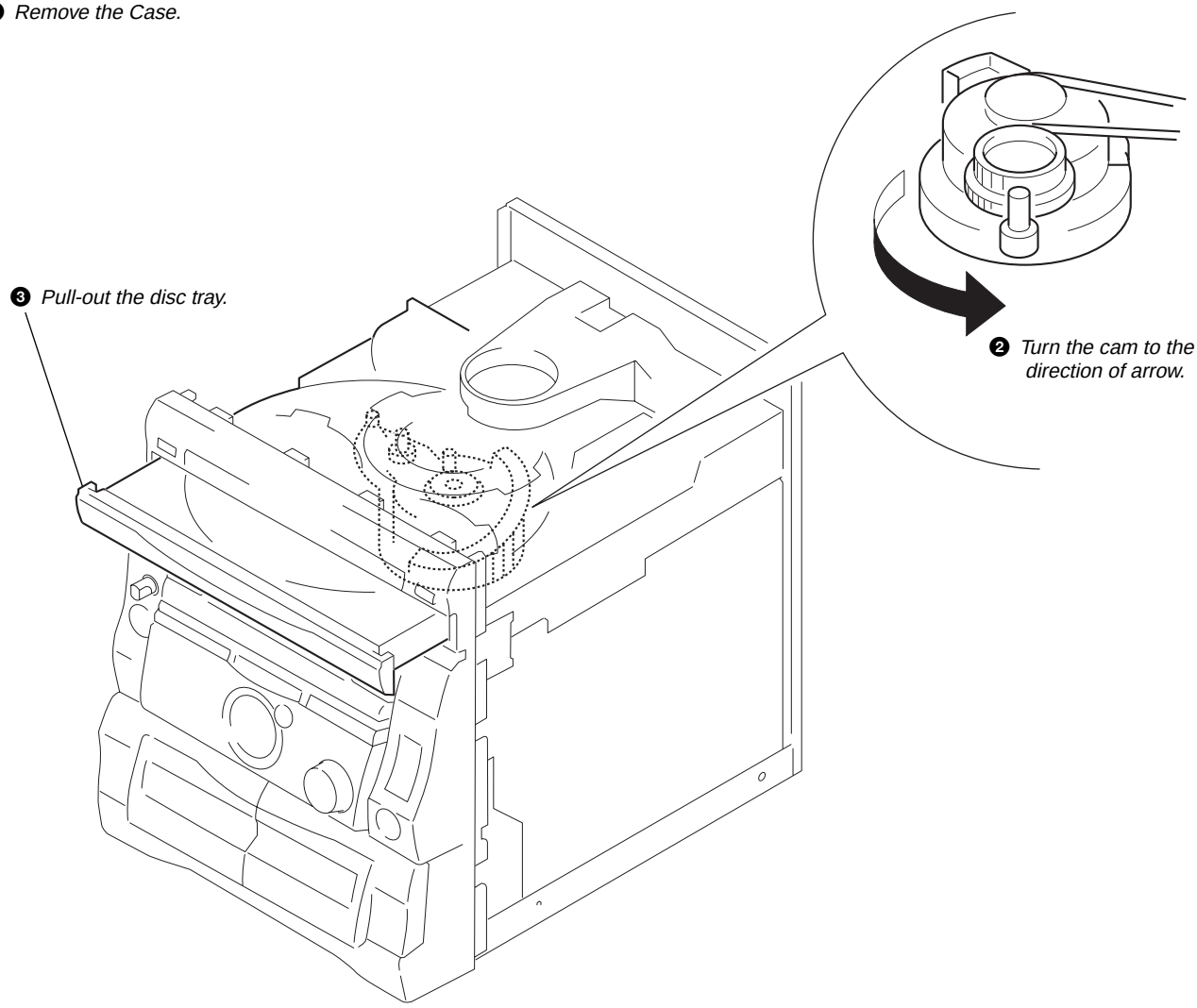
MODEL IDENTIFICATION
– Back Panel –



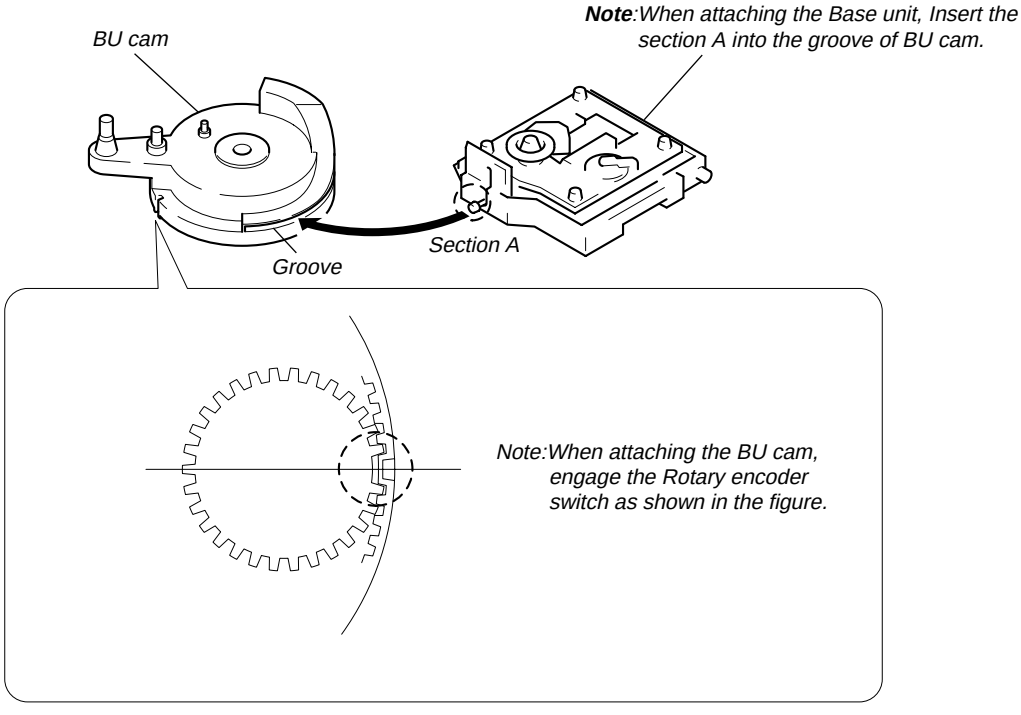
MODEL	PART No.
RX66: US model	4-996-725-0☐
RX66: Canadian model	4-996-725-1☐
GRX5: Thai and Israel models	4-996-725-2☐
GRX5: E model	4-996-842-0☐
GRX5: Malaysia, Singapore and South African models	4-996-842-1☐
GRX5: Saudi Arabia and Taiwan models	4-996-842-2☐
GRX5: Hong Kong model	4-996-842-3☐
GRX5: Australian model	4-996-842-4☐
GRX5: Mexican model	4-996-842-5☐
GRX5: Indonesian model	4-996-842-7☐

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.

❶ *Remove the Case.*

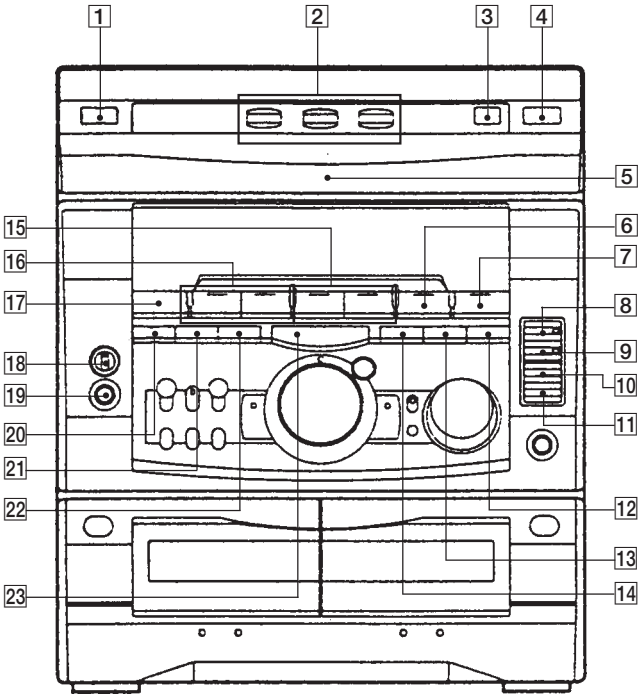


NOTE FOR INSTALLATION (ROTARY ENCODER)

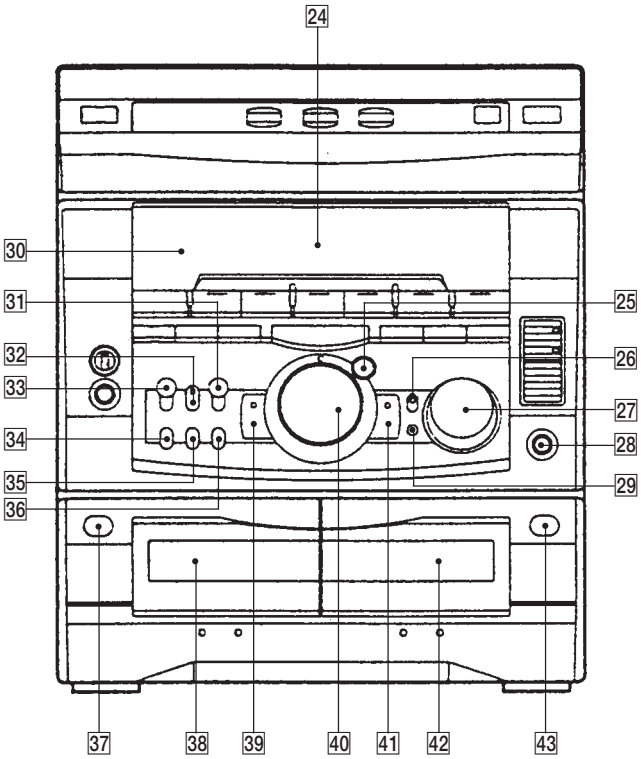

BU cam
Note:When attaching the Base unit, Insert the section A into the groove of BU cam.
Section A
Groove
Note:When attaching the BU cam, engage the Rotary encoder switch as shown in the figure.

SECTION 2
GENERAL

LOCATION OF CONTROLS



1 I /⏻ (Power) button
2 DISC 1 to 3 buttons and indicators
3 DISC SKIP/EX-CHANGE button
4 ⏏ (CD) button
5 CD disc tray
6 CD, ▶II button and indicator
7 TUNER, BAND button
8 ● REC button and indicator
9 II PAUSE button and indicator
10 HI-DUB button
11 CD SYNC button
12 FILE SELECT button
13 SURROUND button
14 KARAOKE PON/MPX button
15 TAPE B, ◀ and ▶ buttons and indicators
16 TAPE A, ◀ and ▶ buttons and indicators
17 FUNCTION button
18 MIC LEVEL knob
19 MIX MIC jac
20 DISPLAY/DEMO button
21 CLOCK/TIMER SET button
22 TIMER SELECT button
23 ■ button



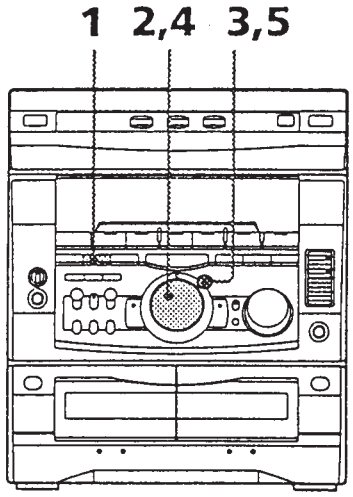
24 Fluorescent indicator tube
25 ENTER/NEXT button and indicator
26 GROOVE button and indicator
27 VOLUME konb
28 PHONES jack
29 DBFB button
30 Remote sensor
31 FLASH button
32 NON-STOP button and indicator
33 LOOP button
34 EDIT, DIRECTION button
35 PLAY MODE, DOLBY NR button
36 REPEAT button
37 ⏏ button (deck A)
38 Tape deck A
39 –, ◀◀ button and indicator
40 JOG dial
41 +, ▶▶ button and indicator
42 Tape deck B
43 ⏏ button (deck B)

Step 2: Setting the time

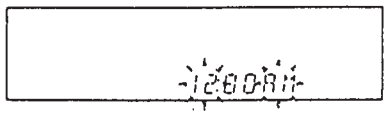
You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model, and a 12-hour system for other models.

The 12-hour system model is used for illustration purposes.

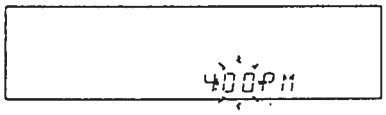


1 Press CLOCK/TIMER SET.
The hour indication flashes.



2 Turn the jog dial to set the hour.

3 Press ENTER/NEXT.
The minute indication flashes.



4 Turn the jog dial to set the minute.

5 Press ENTER/NEXT.
The clock starts working.

Tips

- If you've made a mistake, start over from step 1.
- Setting the time deactivates the demo mode. If you want to display the demo mode, press DISPLAY/DEMO when the power is off.

Note

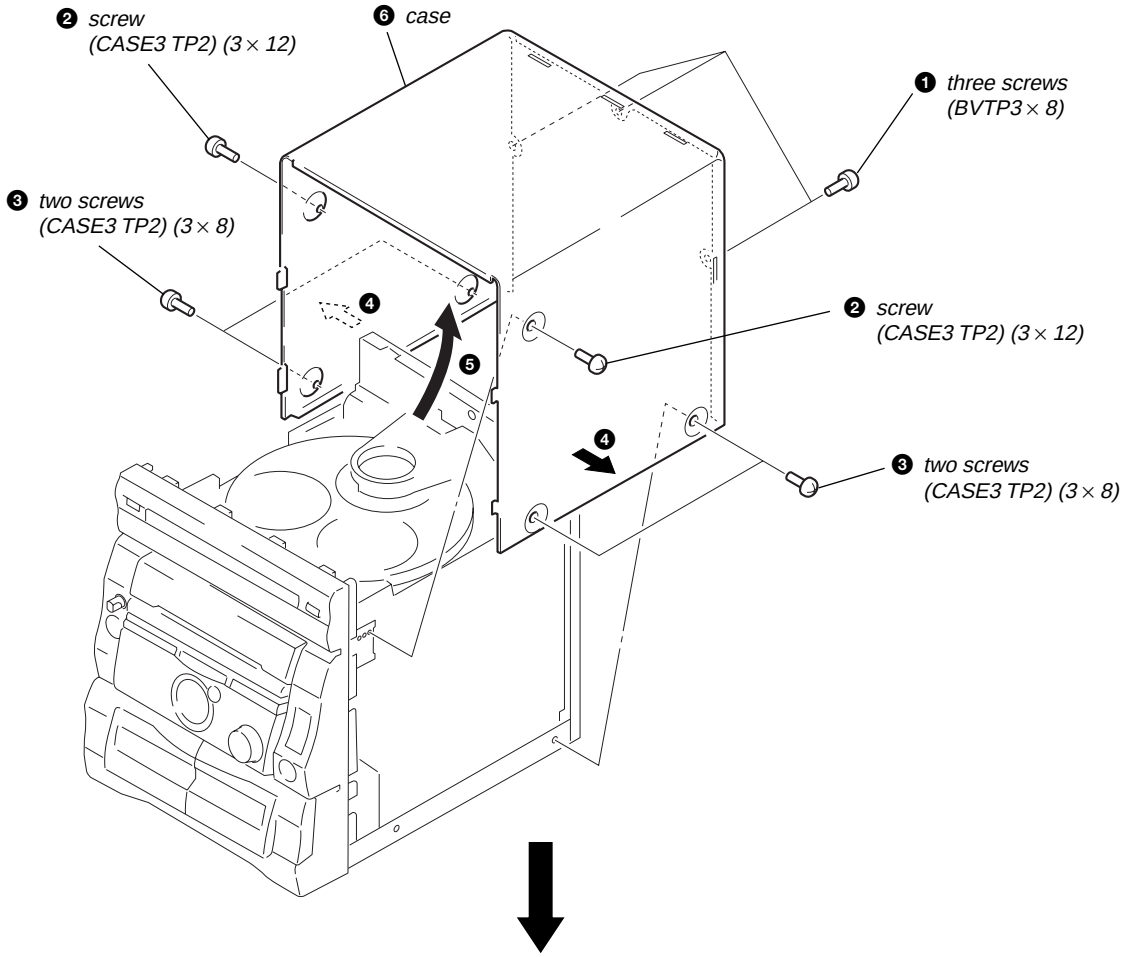
The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

1 Press CLOCK/TIMER SET.
2 Turn the jog dial to select SET CLOCK.
3 Press ENTER/NEXT.
4 Perform steps 2 through 5 above.

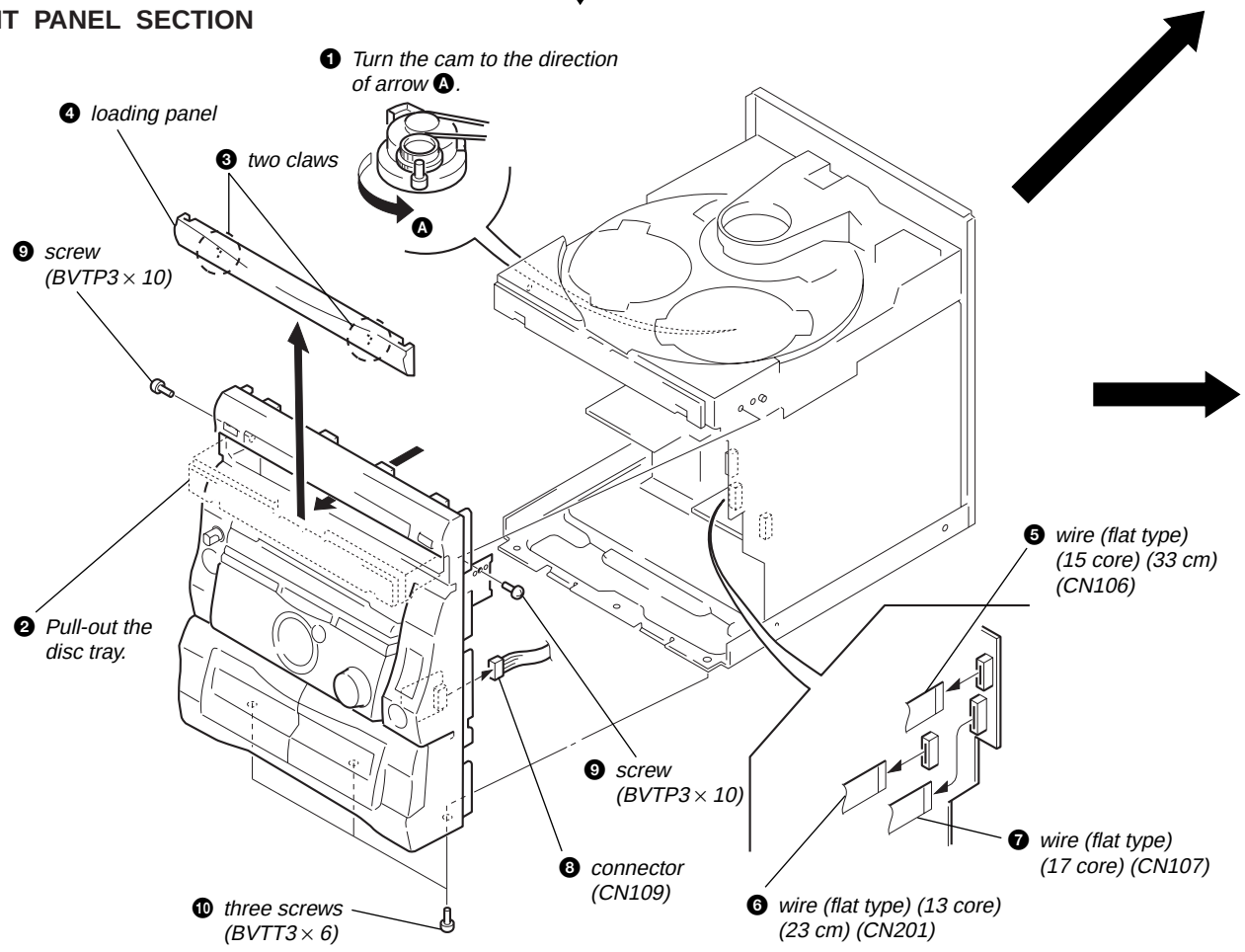
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

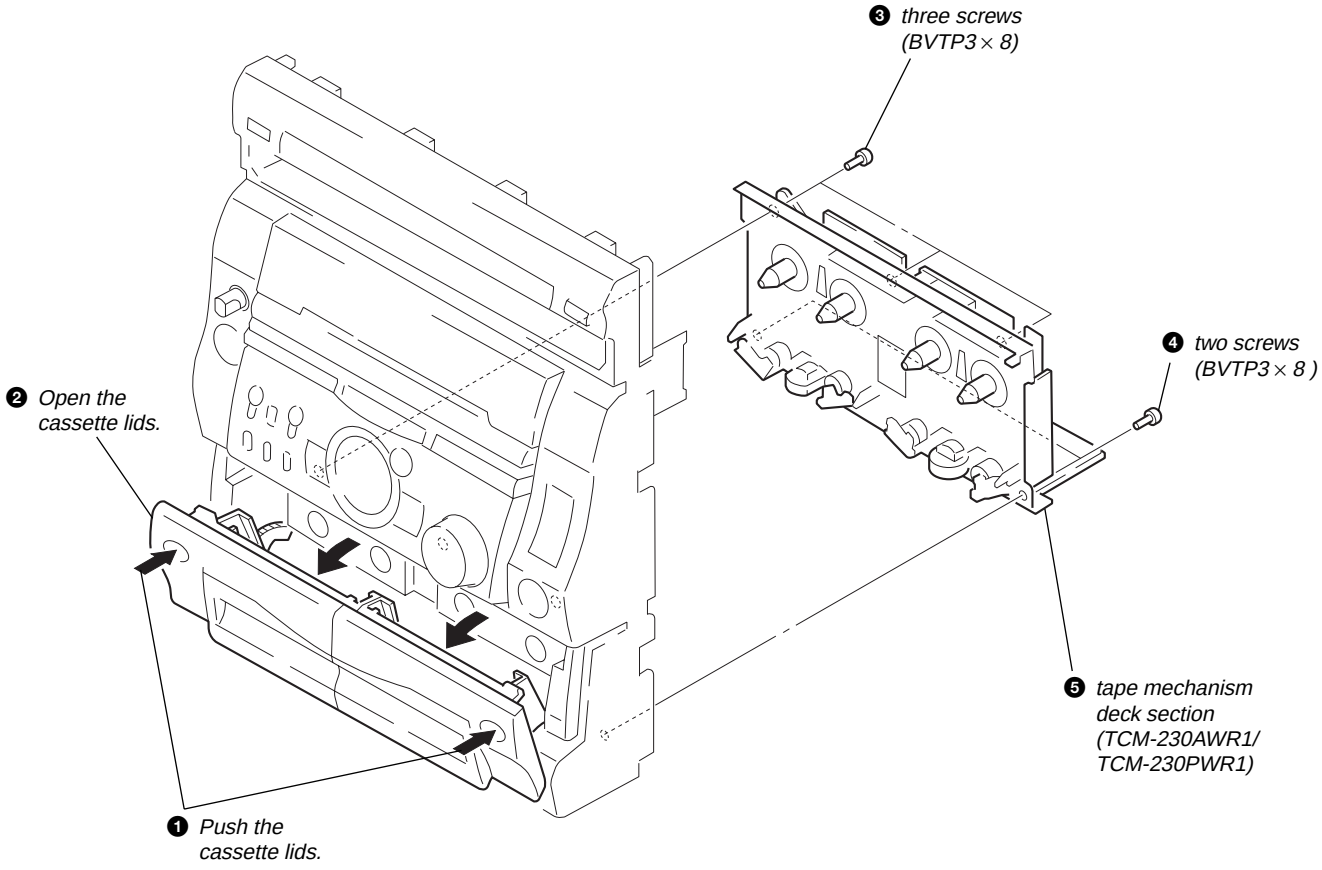
CASE



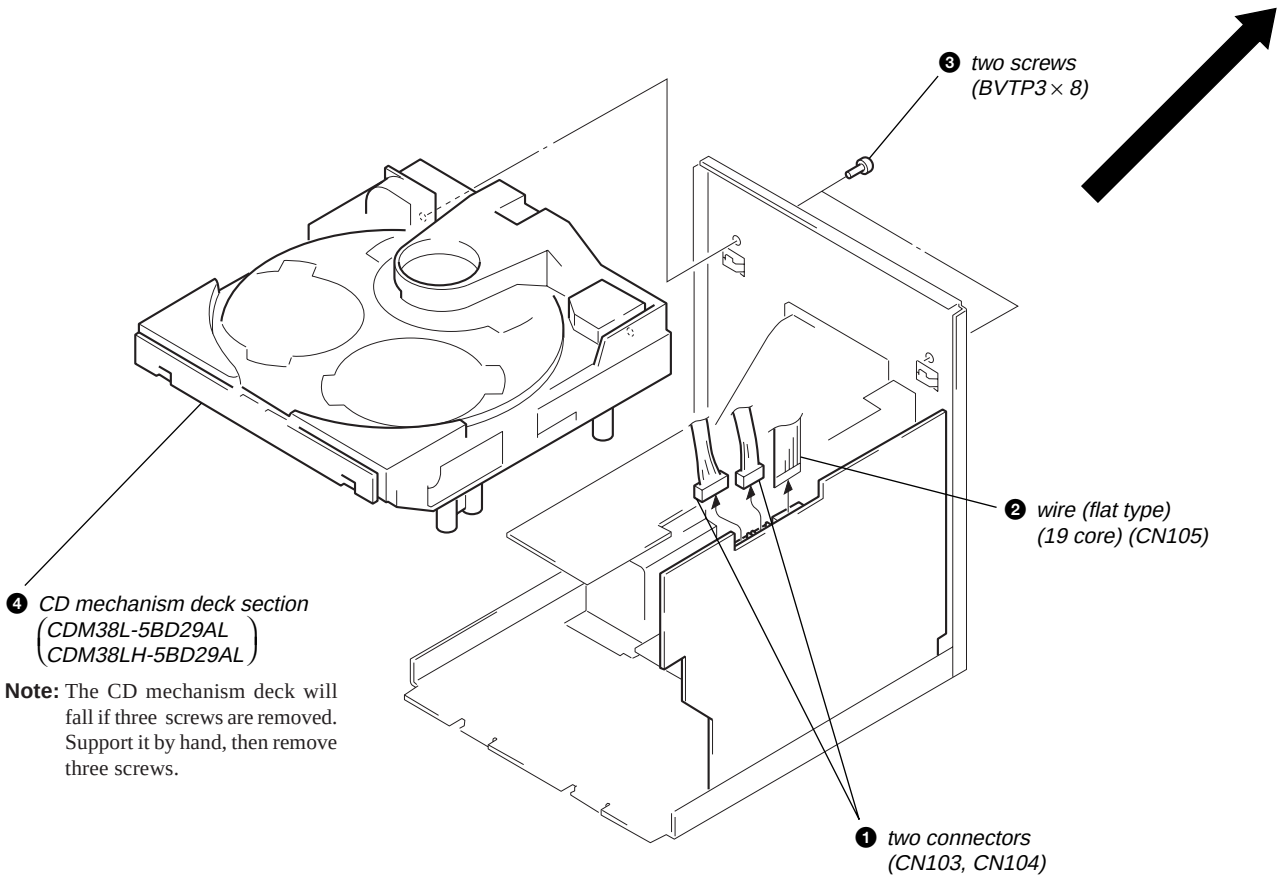
FRONT PANEL SECTION



TAPE MECHANISM DECK SECTION (TCM-230AWR1/TCM-230PWR1)


❸ three screws (BVTP3 × 8)
❹ two screws (BVTP3 × 8)
❷ Open the cassette lids.
❺ tape mechanism deck section (TCM-230AWR1/ TCM-230PWR1)
❶ Push the cassette lids.

CD MECHANISM DECK SECTION (CDM38L-5BD29AL/CDM38LH-5BD29AL)

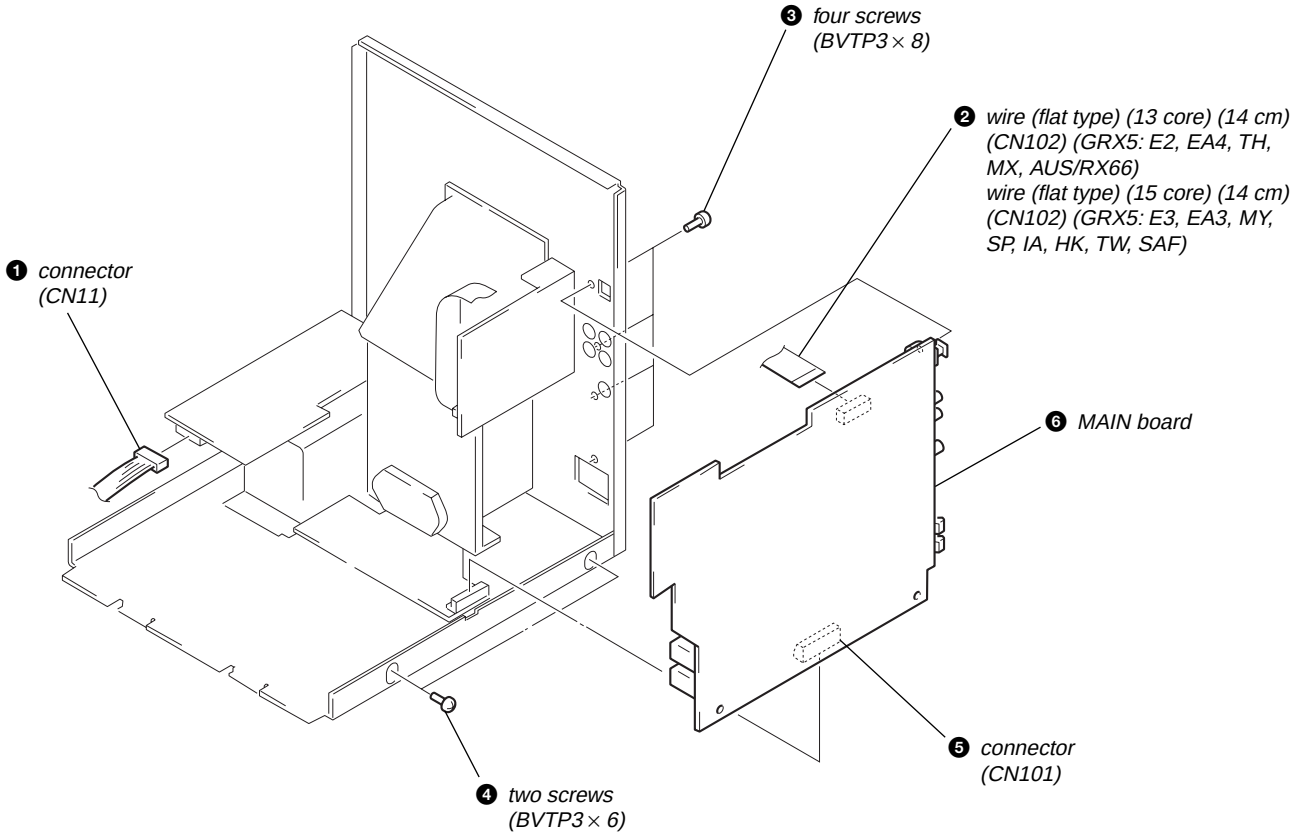

❸ two screws (BVTP3 × 8)
❷ wire (flat type) (19 core) (CN105)
❹ CD mechanism deck section (CDM38L-5BD29AL CDM38LH-5BD29AL)
❶ two connectors (CN103, CN104)

Note: The CD mechanism deck will fall if three screws are removed. Support it by hand, then remove three screws.

MAIN BOARD

Abbreviation

AUS : Australian	E2 : 120 V AC Area in E model	E3 : 240 V AC Area in E model	EA3 : Saudi Arabia
EA4 : Israel	HK : Hong Kong	IA : Indonesian	MX : Mexican
MY : Malaysia	SAF : South African	SP : Singapore	TH : Thai
TW : Taiwan			



SECTION 4
TEST MODE

[MC Cold Reset]

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [I/⏻] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[CD Delivery Mode]

• This mode moves the pickup to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press [LOOP] button and [I/⏻] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[MC Hot Reset]

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Sled Servo Mode]

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pickup.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "CD".
3. Press three buttons [■], [ENTER/NEXT], and [⏏] simultaneously.
4. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
5. With the CD in stop status, press [▶▶ +] button to move the pickup to outside track, or [– ◀◀] button to inside track.
6. To exit from this mode, perform as follows:
   1) Move the pickup to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note: • Always move the pickup to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]

• A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER/NEXT] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[LED and Fluorescent Indicator Tube All Lit, Key Check Mode]

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 2] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 J0 V0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
   "J" value increases like 1, 2, 3 ... if rotating [JOG] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
   "V" value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops and display status.
- If no error occurs:
  The aging operation continues repeatedly.

1. Operating Method of Aging Mode

1) Set disc in DISC1 tray.
2) Load the tapes recording use into the decks A and B respectively.
3) Press three buttons [■], [ENTER/NEXT], and [DISC SKIP/EX-CHANGE] simultaneously.
4) The aging mode is activated, if a CD roulette mark on the fluorescent indicator tube is blinking.
5) To exit from the aging mode, press [I/⏻] button to turn the set OFF.

2. Operation Sequence

- During the aging mode in the following sequence to below.
- Starting the CD section aging for function set “CD”, starting the TAPE section (deck A) aging for function set “TAPE A” or “TAPE B”. (Set another function is no work.)

CD (disc1) (12 minutes) → Deck A
↓
Deck B
} (About 13 minutes 20 seconds maximum)

3. Aging mode in CD section

1) Display state

- No error occurs

display

[✳][✳] 1 – [@][@]

Note:

[✳][✳] : a letter “CD” and the remainder time (minute) alternately. (remainder time start from 12 minute)
[@][@] : track number in access.

- Error occurred

NO.	Display	Main factor
1	NO DISC ERR	Not set disc in DISC1
2	FOCUS1 ERR	Focus does not work
3	FOCUS2 ERR	Focus does not work after the disc rotate as usual
4	GFS ERR	GFS error
5	FBIAS ERR	Error in to the focus bias adjustment
6	SENSOR ERR	Disc sensor sens DISC1 is no disc
7	TABLE ERR	CD tray lotate does not work
8	TRAY ERR	Tray (include BD) move does not work

2) Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

(1) The disc tray turns to select a disc1.
(2) A disc is chucked.
(3) TOC of disc is read.
(4) The pickup accesses to the track 1, and playing 2 seconds.
(5) The pickup accesses to the last track, and playing 2 seconds.
(6) Steps 1 through 5 are repeated about 12 minutes.
(7) Change to deck section aging.

4. Aging mode in Tape Deck section

1) Display state

- No error occurs
  Display action now
- Error occurred
  Display action last time

NO.	Display action	Action contents	Final timing
1	TAPE A AG-1	Rewind the TAPE A	The top of tape
2	TAPE A AG-2	FWD play the TAPE A	3 minutes playing
3	TAPE A AG-3	F.F. the TAPE A	First either 20 minutes or the end of tape
4	TAPE A AG-4	REV play the TAPE A	3 minutes playing
5	TAPE A AG-5	Rewind the TAPE A	The top of tape
6	TAPE B AG-1	Rewind the TAPE B	The top of tape
7	TAPE B AG-2	FWD play the TAPE B	3 minutes playing
8	TAPE B AG-3	F.F. the TAPE B	First either 20 minutes or the end of tape
9	TAPE B AG-4	REV play the TAPE B	3 minutes playing
10	TAPE B AG-5	Rewind the TAPE B	The top of tape

2) Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

(1) Rewind is executed up to the top of tape.
(2) A tape on FWD side is played for 3 minutes.
(3) FF is executed up to either made for 20 minutes or the end of tape.
(4) A tape is reversed, and the tape on REV side is played for 3 minutes.
(5) Rewind is executed up to the top of tape.
(6) Steps 1 through 5 are executed for the other deck.
(7) Change to CD section aging.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads, erase head, capstan, pinch rollers, rubber belts, idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

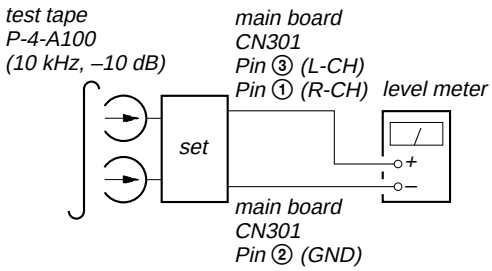
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

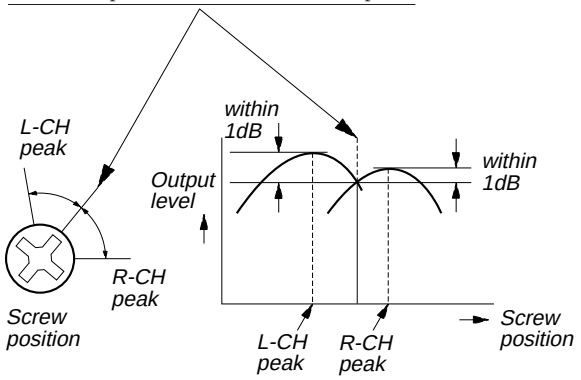
Note: Perform this adjustments for both decks

Procedure:

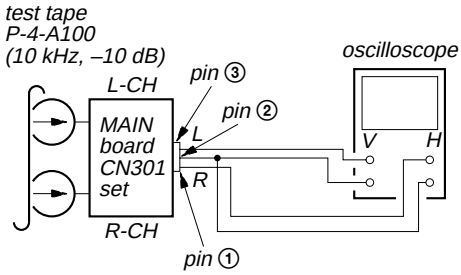
1. Mode: Playback

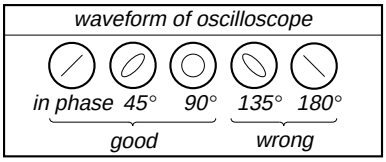


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



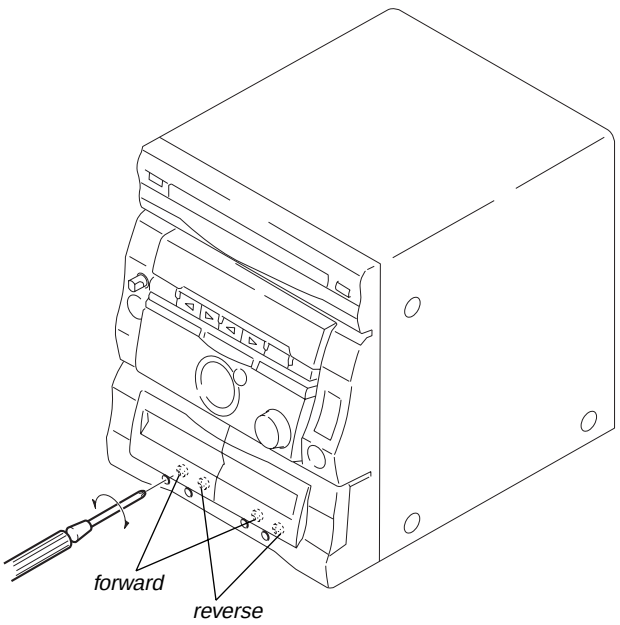
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).



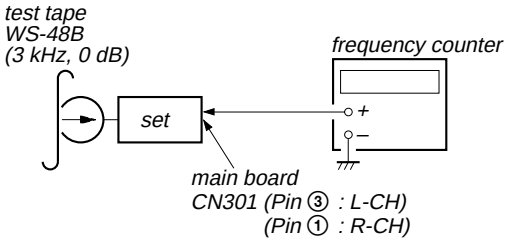
Tape Speed Adjustment DECK B

Note: Start the Tape Speed adjustment as below after setting to the test mode.
In the test mode, the tape speed is high during pressing the HI-DUB button.

Procedure:

1. Turn the power switch on.
2. Press the ■ button, ENTER/NEXT button and DISC 3 button simultaneously.
   (The "VOLUME" on the fluorescent indicator tube will blink while in the test mode.)
   To exit from the test mode, press the I/⏻ button.

Mode: Playback



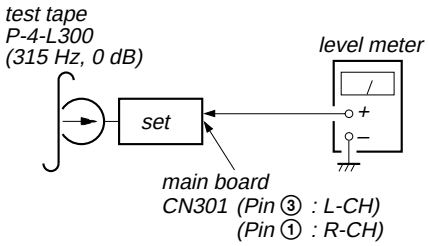
1. Insert the WS-48B into the deck B.
2. Press the ▷ button on the deck B.
3. Press the HI-DUB button in playback mode.
   Then at HIGH speed mode.
4. Adjust RV1001 on the LEAF SW board do that frequency counter reads 6,000 ± 180 Hz.
5. Press the HI-DUB button.
   Then back to NORMAL speed mode.
6. Adjust RV1002 on the LEAF SW board so that frequency counter reads 3,000 ± 90 Hz.

Adjustment Location: LEAF SW board

Playback level Adjustment DECK A DECK B

Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

CN301 PB level: 301.5 to 338.3 mV (–8.2 to –7.2 dB) level difference between the channels: within ±0.5 dB

Adjustment Location: AUDIO board

REC Bias Adjustment DECK B

Procedure:

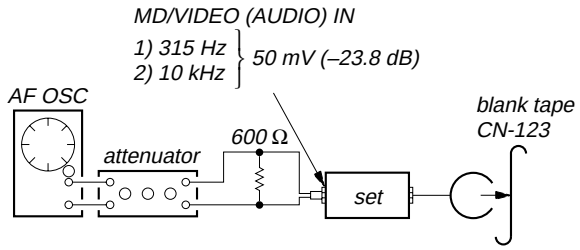
INTRODUCTION

When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

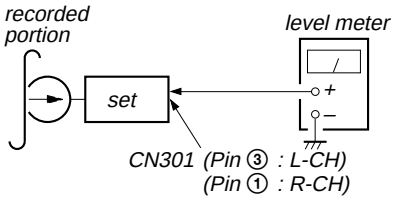
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(If do not operation of stopped from recording complete, and press [– ◀◀] button then rewind to recording start position.)

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B.
3. After press [● REC] button, press [❚❚] button, then recording start.
4. Mode: Record



5. Mode: Playback



6. Confirm playback the signal recorded in step 3 become adjustable level as follows.
   If these levels do not adjustable level, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 4 and 5.

Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ±1.0 dB

Adjustment Location: AUDIO board

REC Level Adjustment DECK B

Procedure:

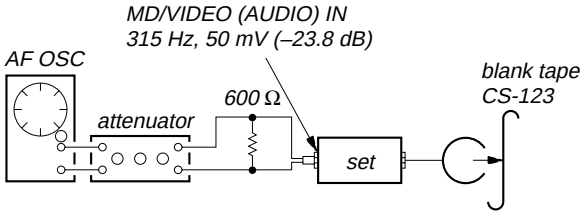
INTRODUCTION

When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

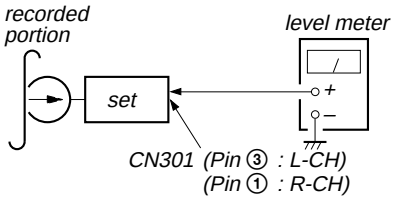
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(If do not operation of stopped from recording complete, and press [– ◀◀] button then rewind to recording start position.)

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B.
3. After press [● REC] button, press [❚❚] button, then recording start.
4. Mode: Record



5. Mode: Playback

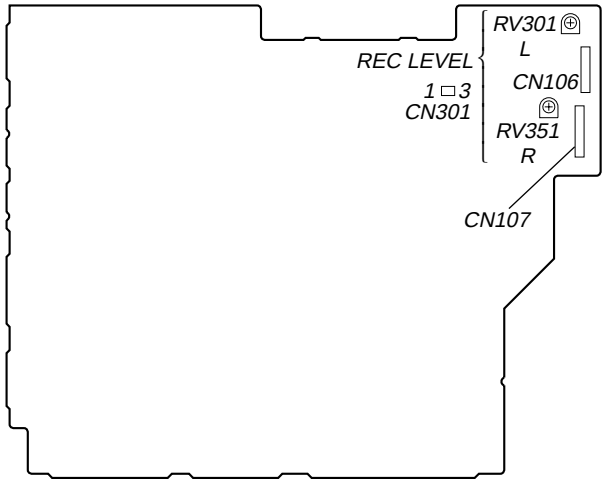


6. Confirm playback the signal recorded in step 3 become adjustable level as follows.
   If these levels do not adjustable level, adjustment the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

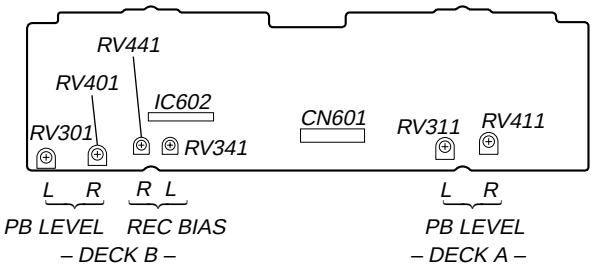
Adjustable level:
CN301 PB level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

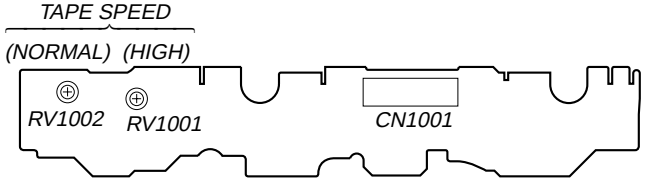
[MAIN BOARD] (Component Side)



[AUDIO BOARD] (Component Side)



[LEAF SW BOARD] (Component Side)

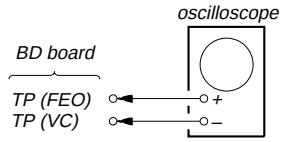


CD SECTION

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

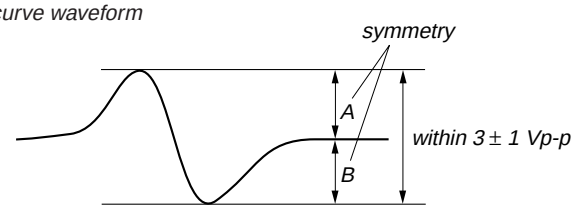
S Curve Check



Procedure:

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (Actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.

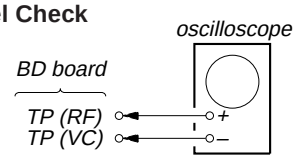
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note: • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

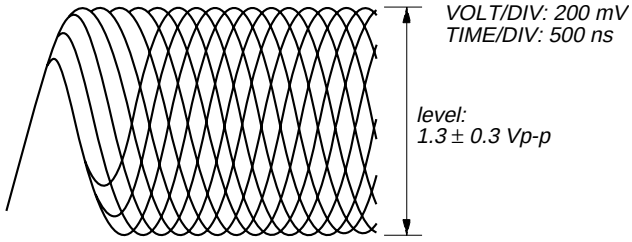


Procedure:

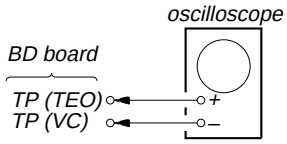
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

- **FR signal**



E-F Balance (Traverse) check (Without remote commander)

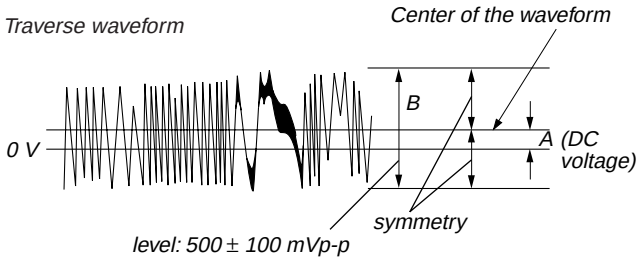


Procedure:

1. Connect oscilloscope to test point TP (TEO) on BD board.
2. Turned Power switch on. Press FUNCTION button to select CD.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the ■ button, ENTER/NEXT button and ▶II button simultaneously several times to fluorescent indicator tube display "SHUFFLE" is blink. (The sledding servo is turned OFF.)
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following:

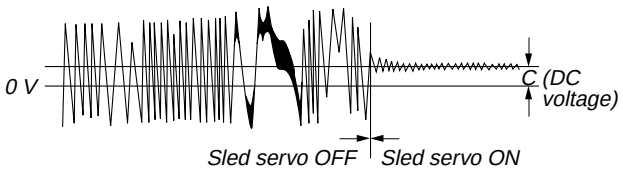
$$\frac{A}{B} \times 100 = \text{less than } \pm 7\ (\%)$$

Traverse waveform



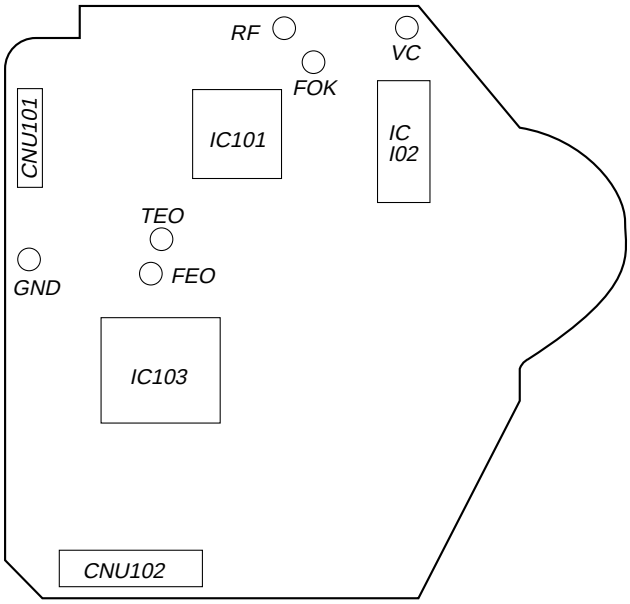
6. Press the ■ button, ENTER/NEXT button and ▶II button simultaneously several times to fluorescent indicator tube display "SHUFFLE" is OFF. (The sleding servo is turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 5.

Traverse waveform



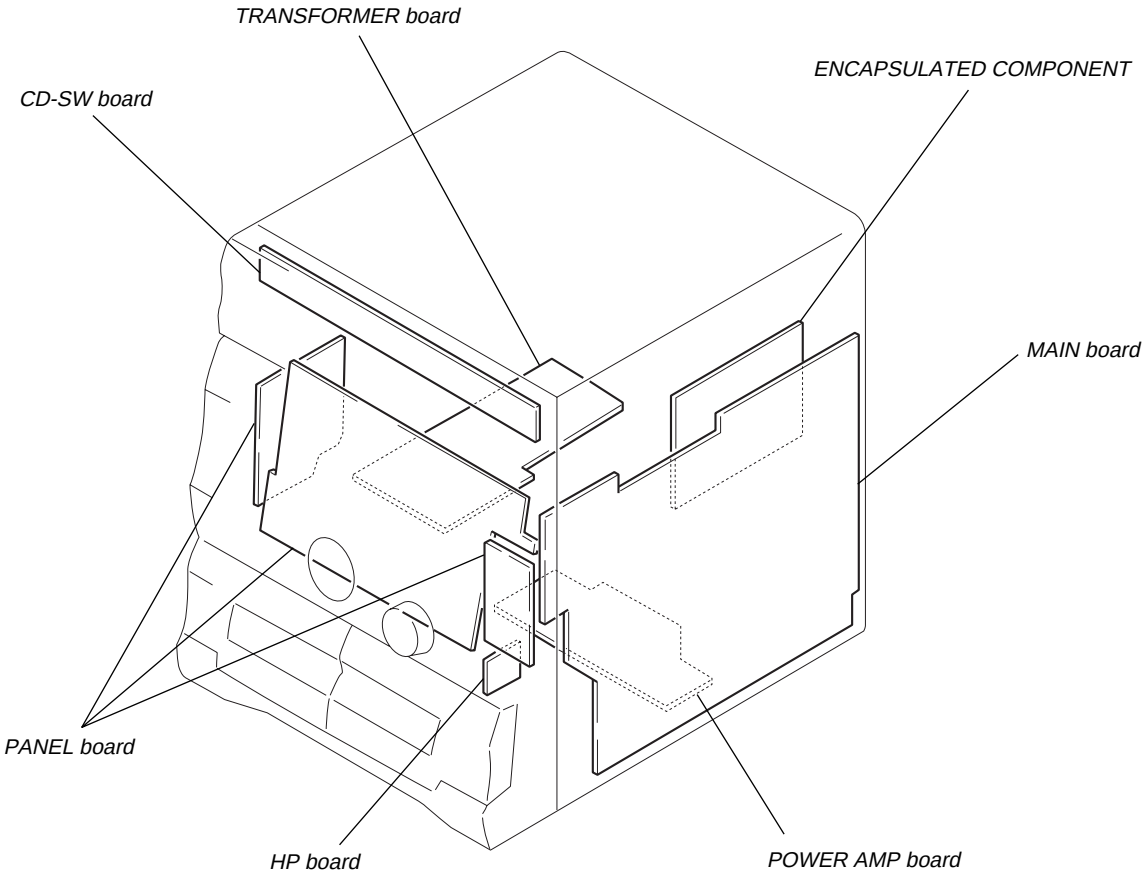
Adjustment Location:

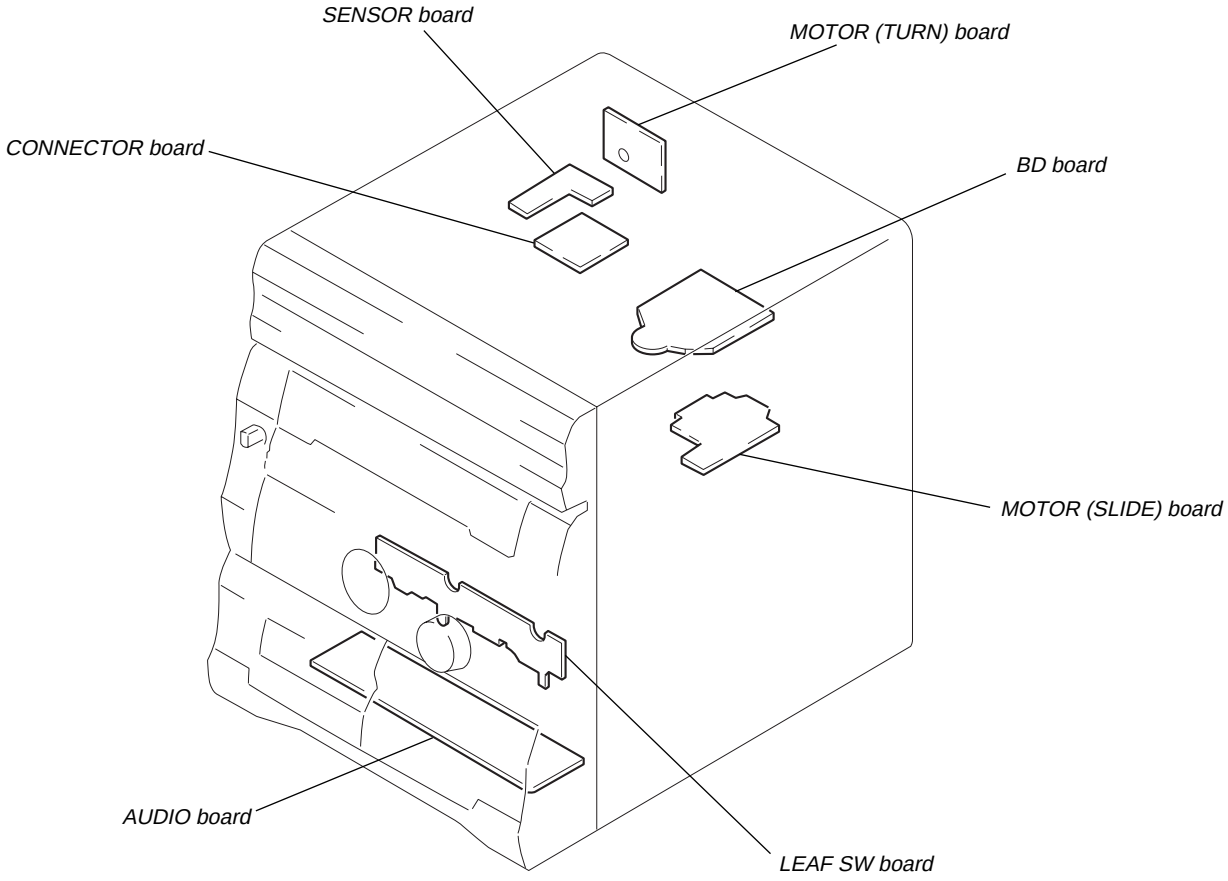
[BD BOARD] (Conductor Side)



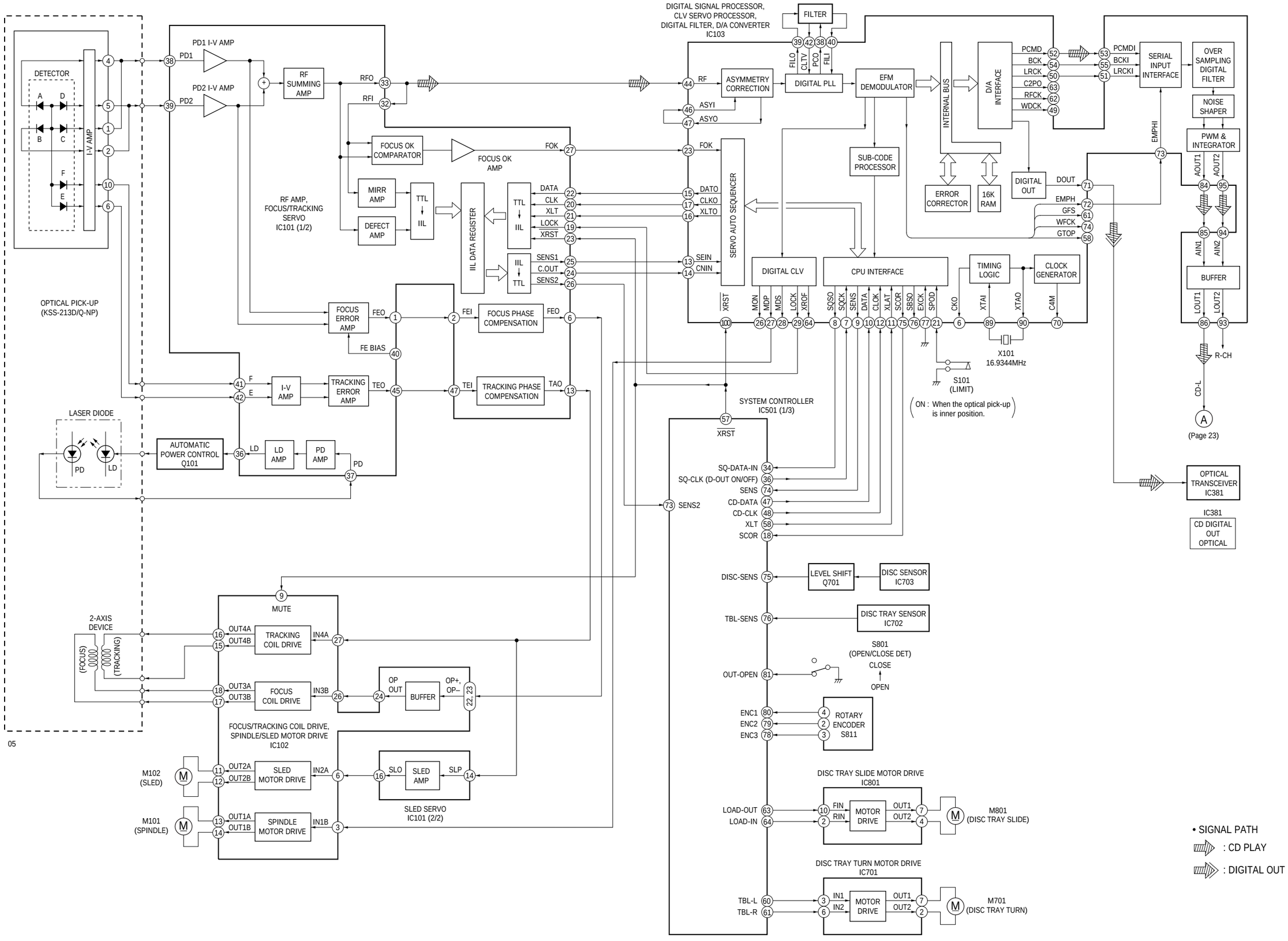
SECTION 7
DIAGRAMS

- **Circuit Boards Location**

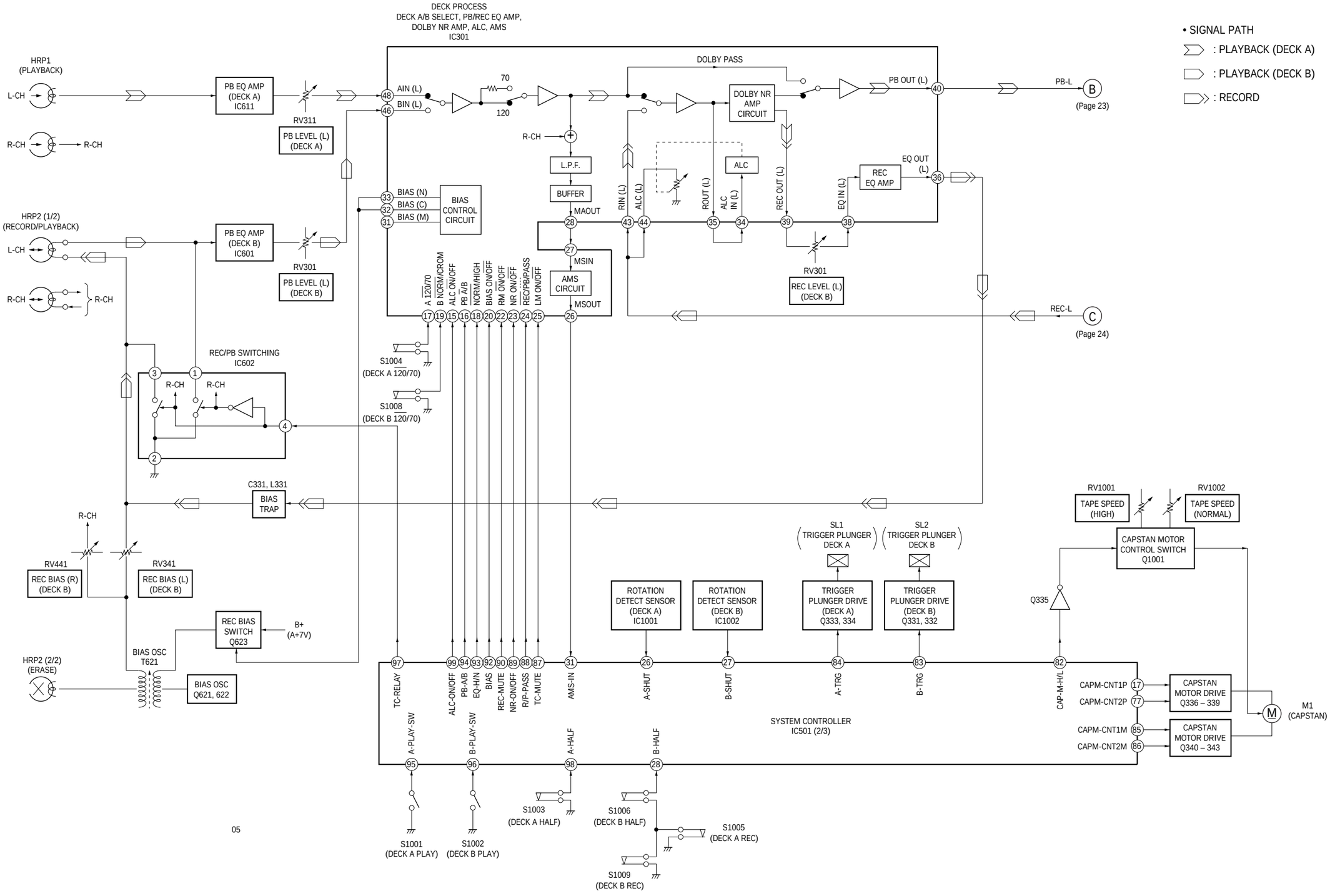




7-1. BLOCK DIAGRAM – CD MECHANISM DECK Section –

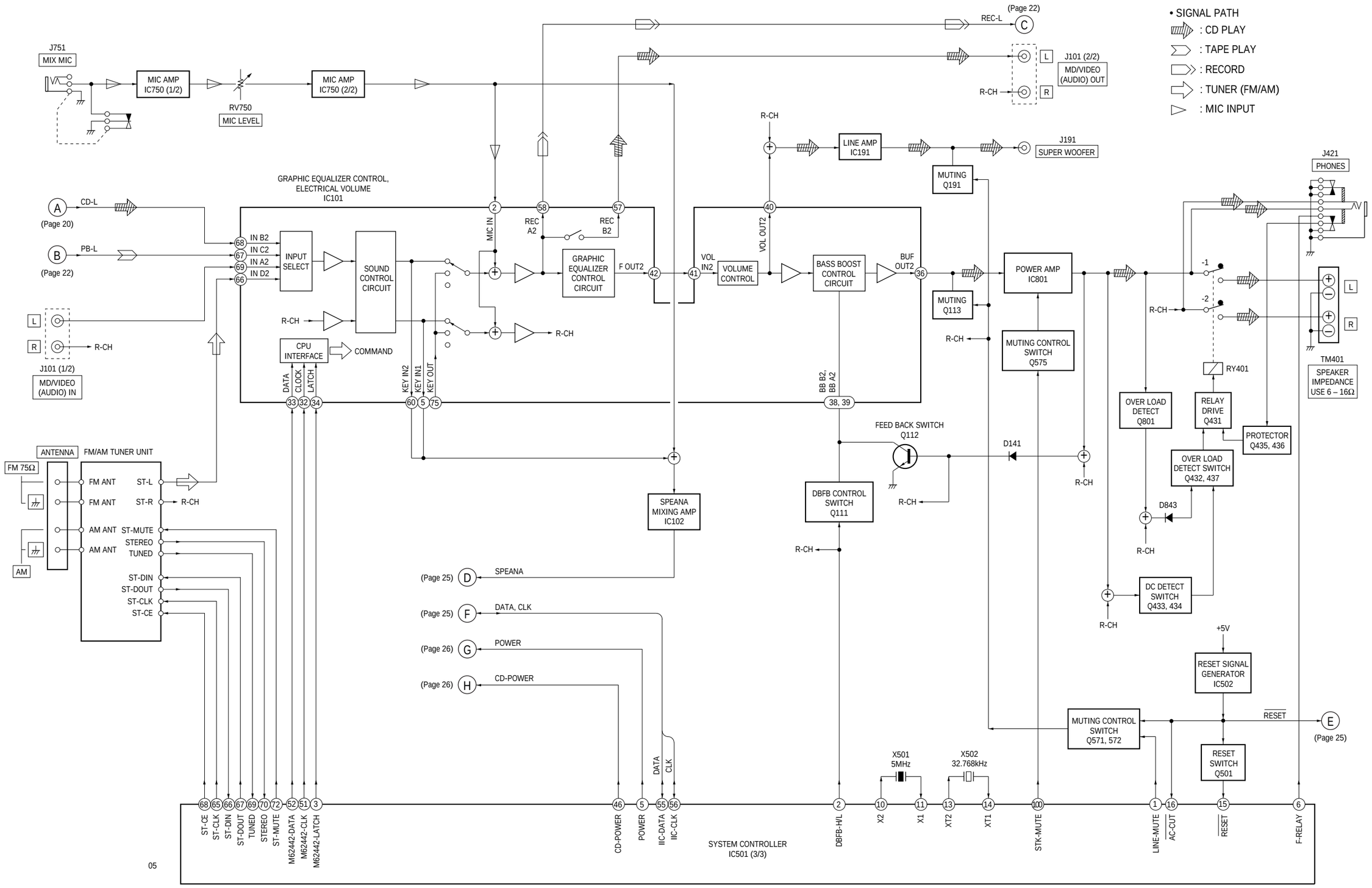


7-2. BLOCK DIAGRAM – TAPE DECK Section –

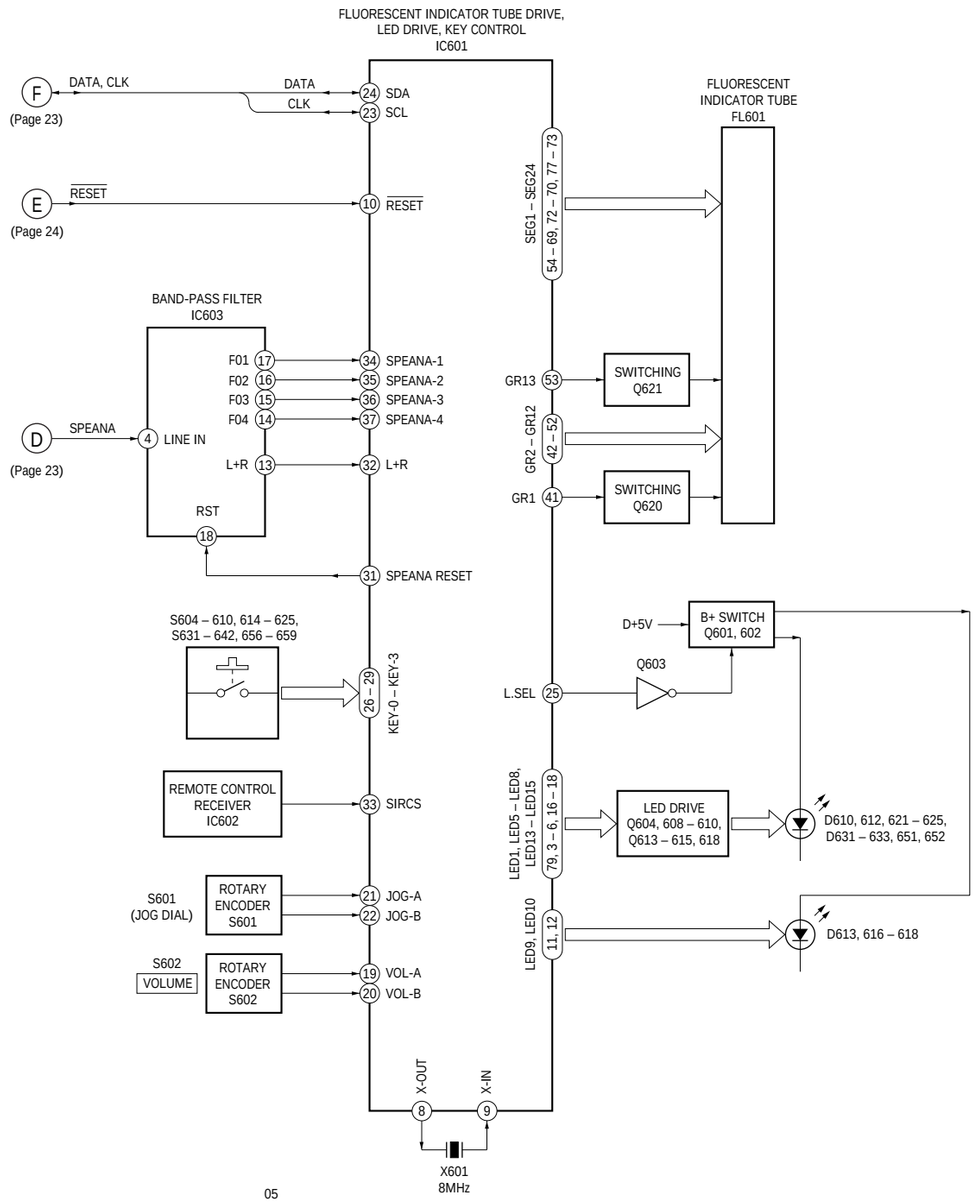


05

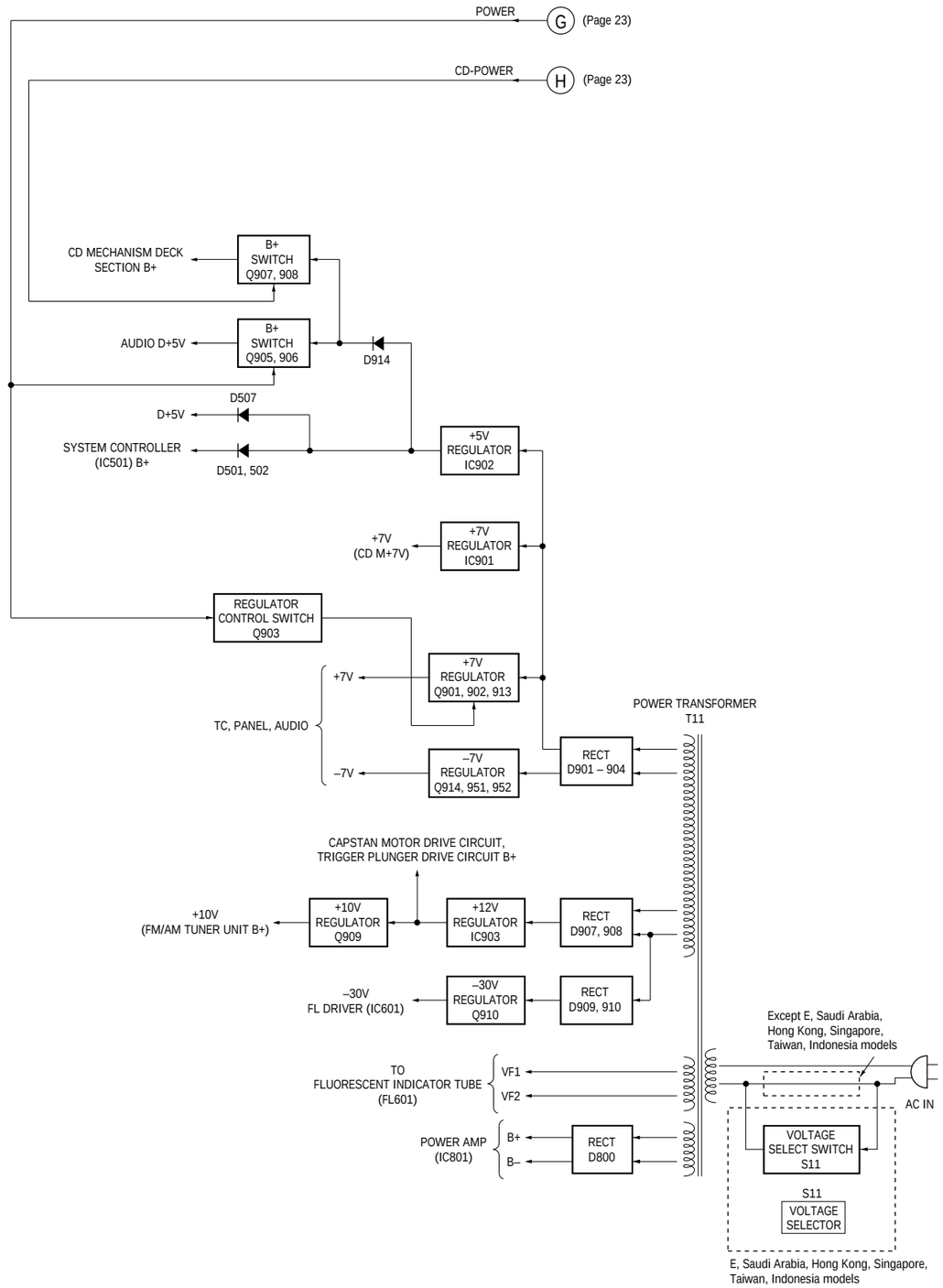
7-3. BLOCK DIAGRAM – MAIN Section –



7-4. BLOCK DIAGRAM – DISPLAY/KEY CONTROL/POWER SUPPLY Section –



05



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- B+ : B+ Line.
- B– : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ➡ : AM
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)
  - : CD
  - : digital out
- Abbreviation

  AUS : Australian model.
  CND : Canadian model.
  E2 : 120 V AC Area in E model.
  E3 : 240 V AC Area in E model.
  EA3 : Saudi Arabia model.
  EA4 : Israel model.
  HK : Hong Kong model.
  IA : Indonesian model.
  MX : Mexican model.
  MY : Malaysia model.
  SAF : South African model.
  SP : Singapore model.
  TH : Thai model.
  TW : Taiwan model.

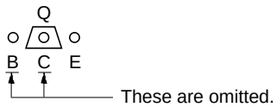
Note on Printed Wiring Boards:

- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

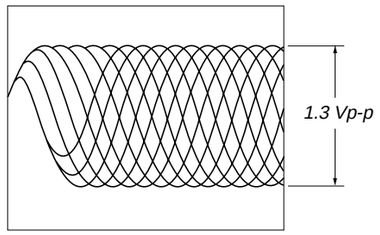
- Indication of transistor.



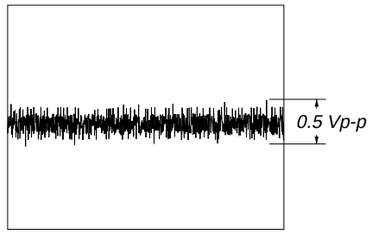
• Waveforms

– BD Section –

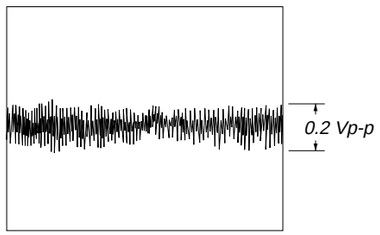
❶ IC101 ㉝ (RF O) (PLAY MODE)



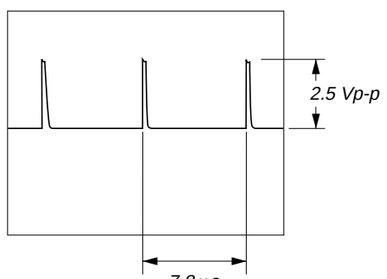
❷ IC101 ② (FEI) (PLAY MODE)



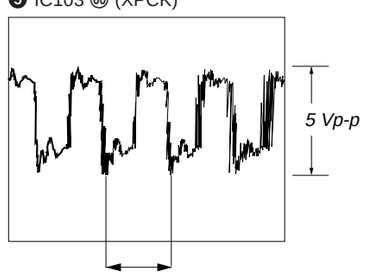
❸ IC101 ㊼ (TEI) (PLAY MODE)



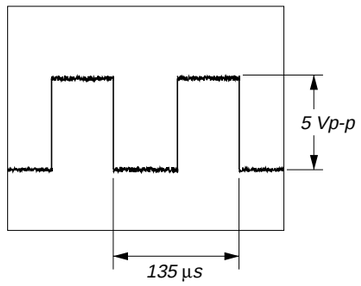
❹ IC103 ㉗ (MDP)



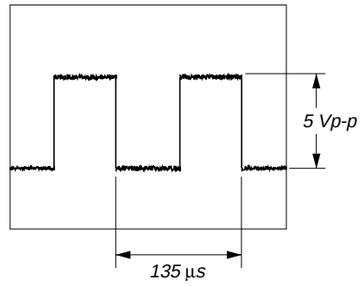
❺ IC103 ㊿ (XPCK)



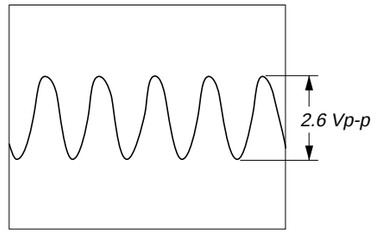
❻ IC103 ㊷ (RFCK)



❼ IC103 ㉞ (WFCK)

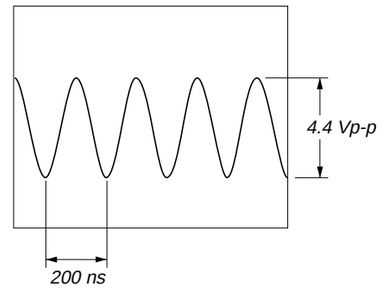


❽ IC103 ㊾ (XTAI)

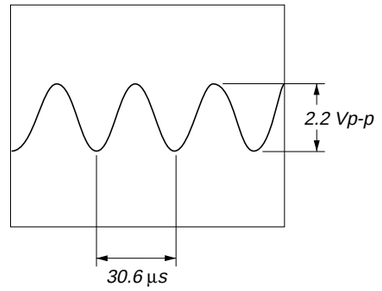


– MAIN Section –

❶ IC501 ⑪ (X1)

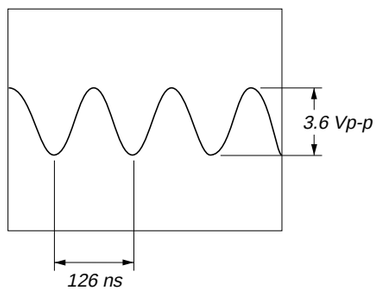


❷ IC501 ⑭ (XT1)



– PANEL Section –

❸ IC601 ⑨ (X-IN)

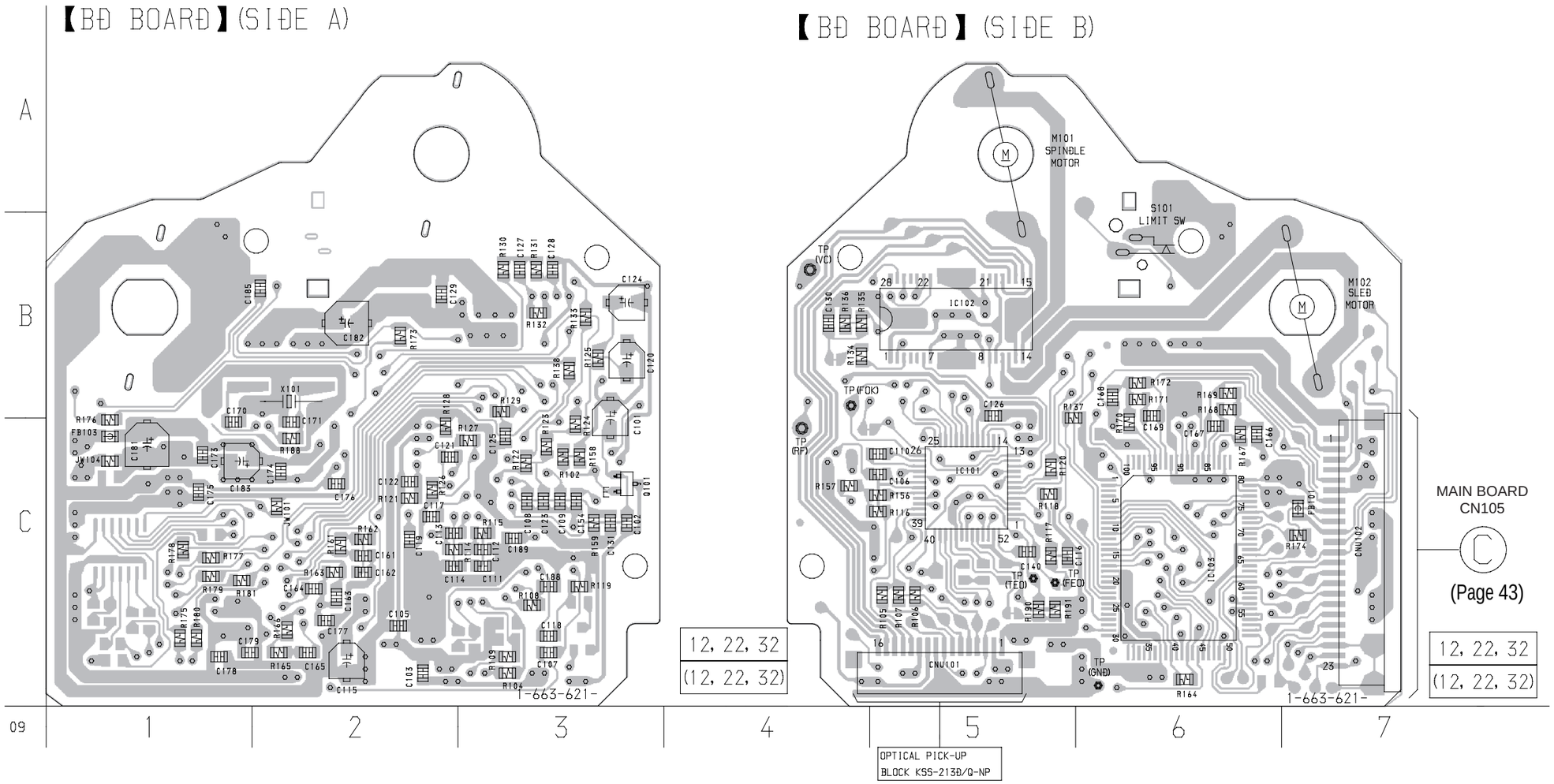


7-5. PRINTED WIRING BOARD – CD Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.

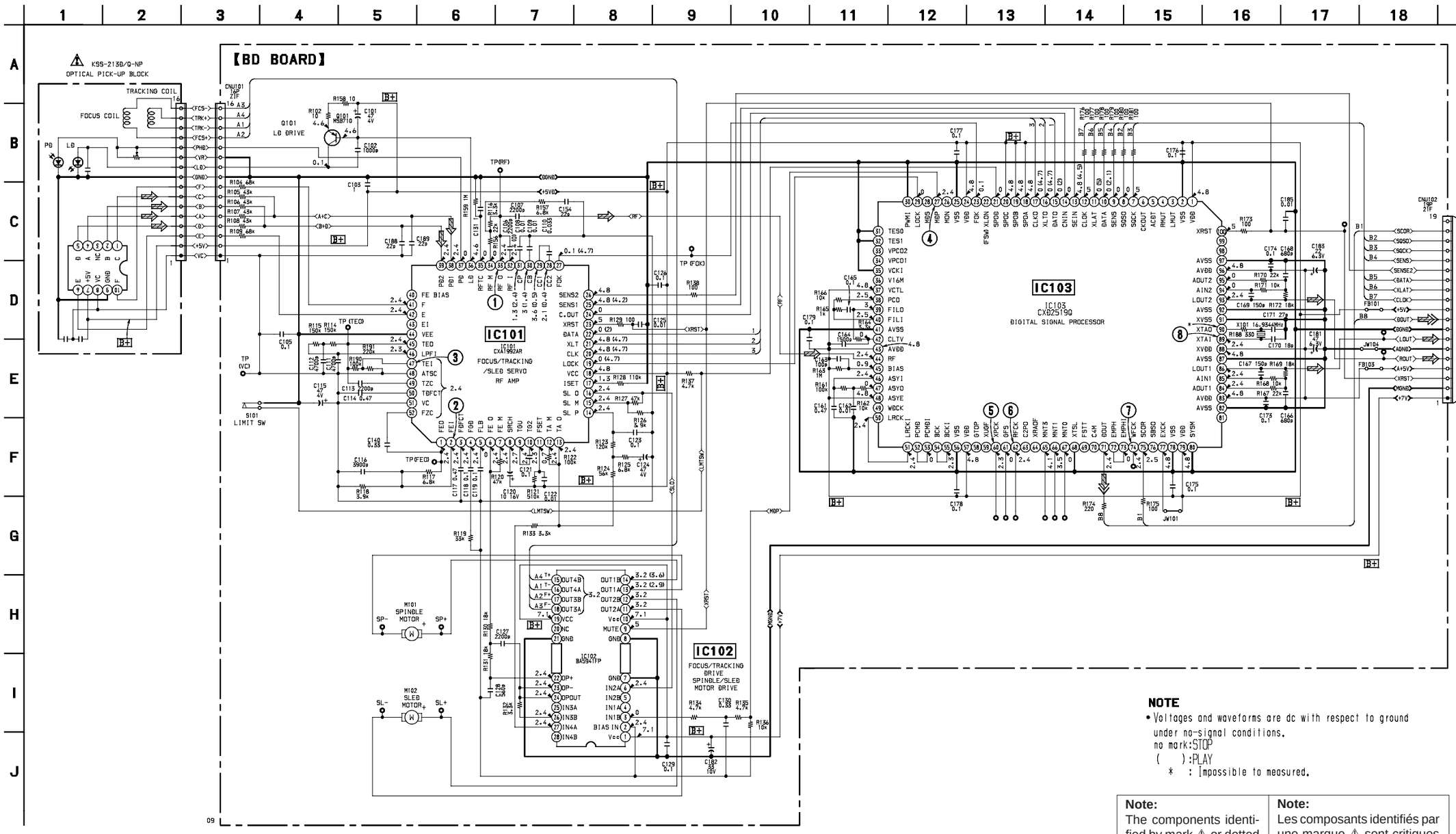
• **Semiconductor Location**

Ref. No.	Location
IC101	C-5
IC201	B-5
IC501	C-6
Q101	C-3



7-6. SCHEMATIC DIAGRAM – CD Section –

• See page 28 for Waveforms. • See page 65 and 66 for IC Block Diagrams. • See page 27 for Note on Schematic Diagram.



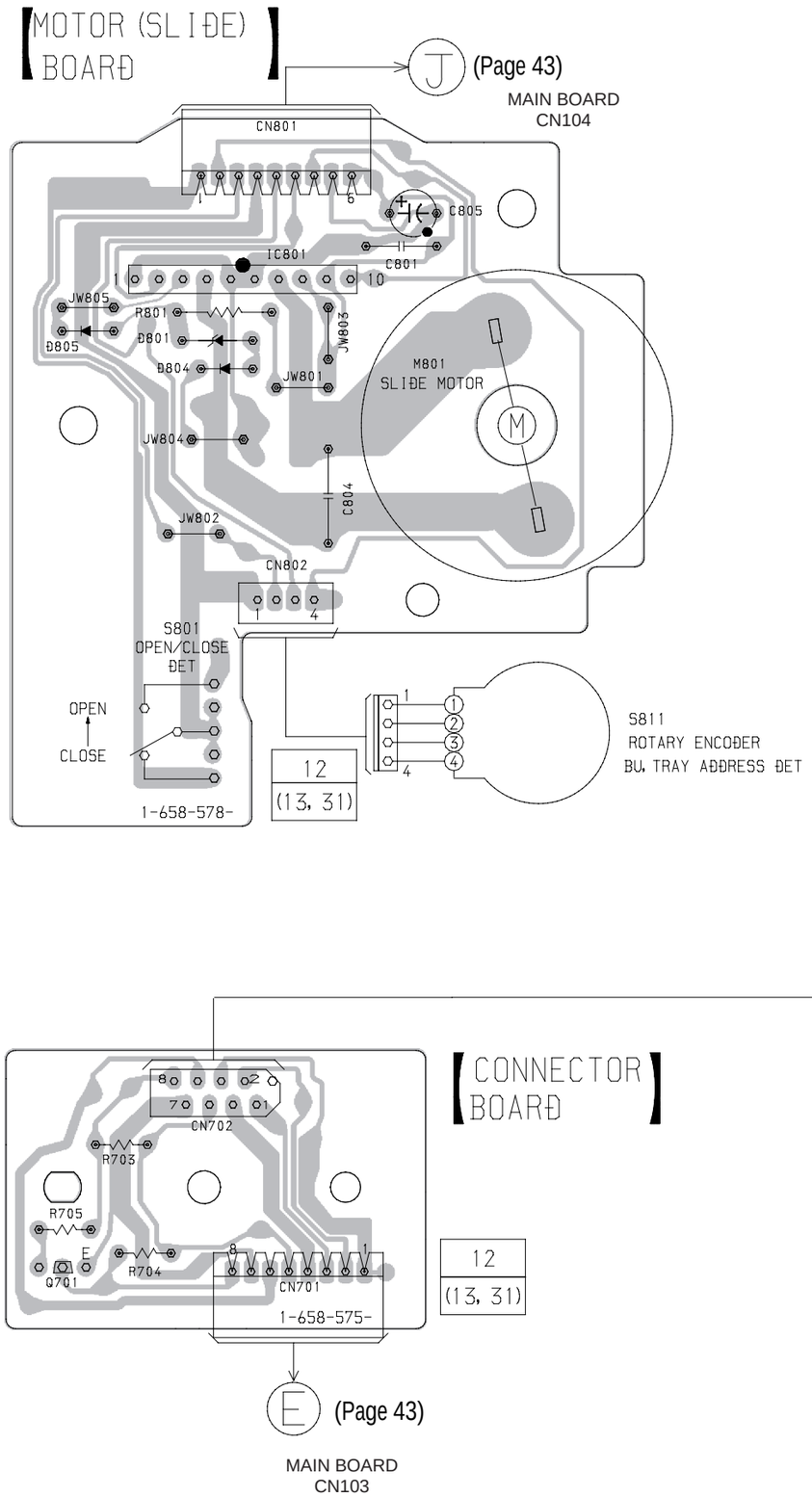
NOTE

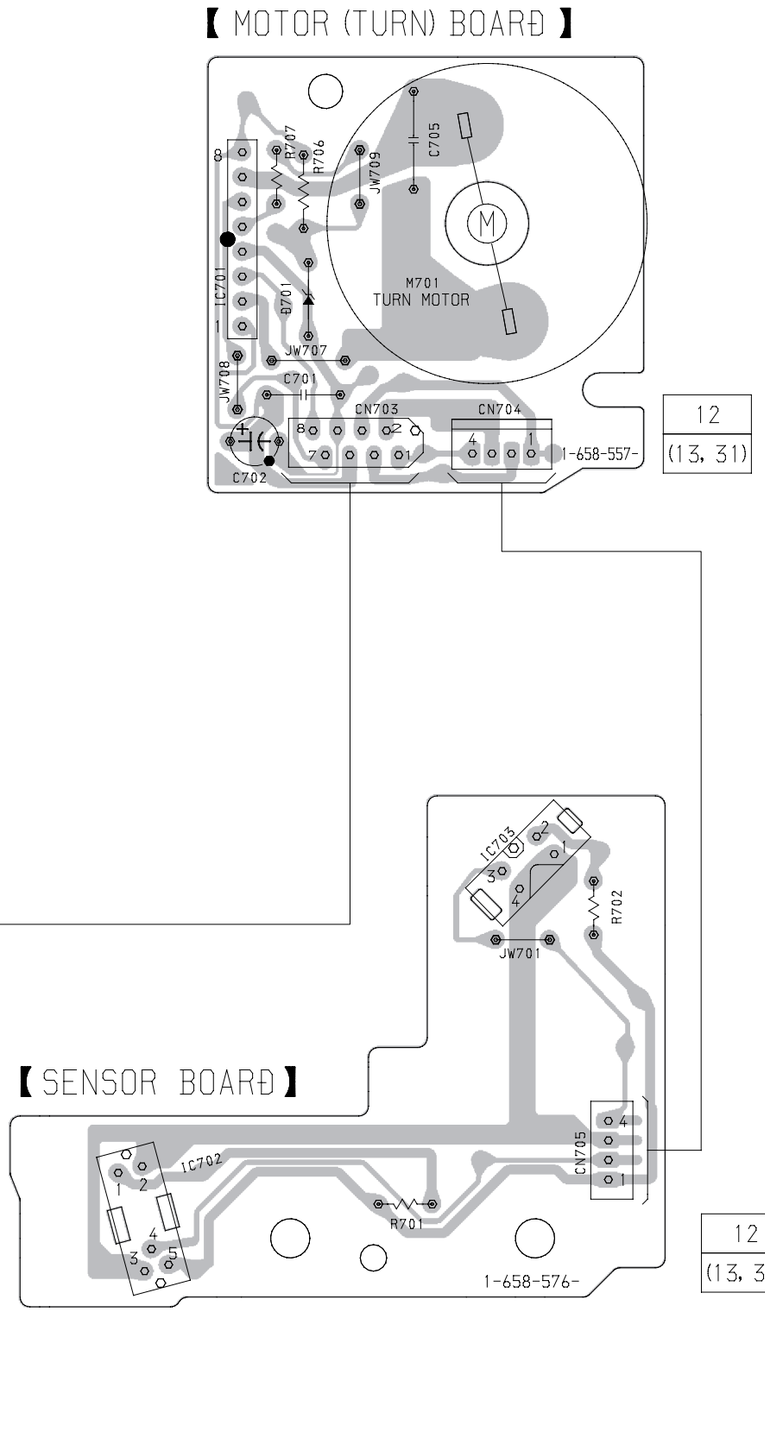
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:STOP
  ( ):PLAY
  * : Impossible to measured.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

7-7. PRINTED WIRING BOARDS – CD MOTOR Section –

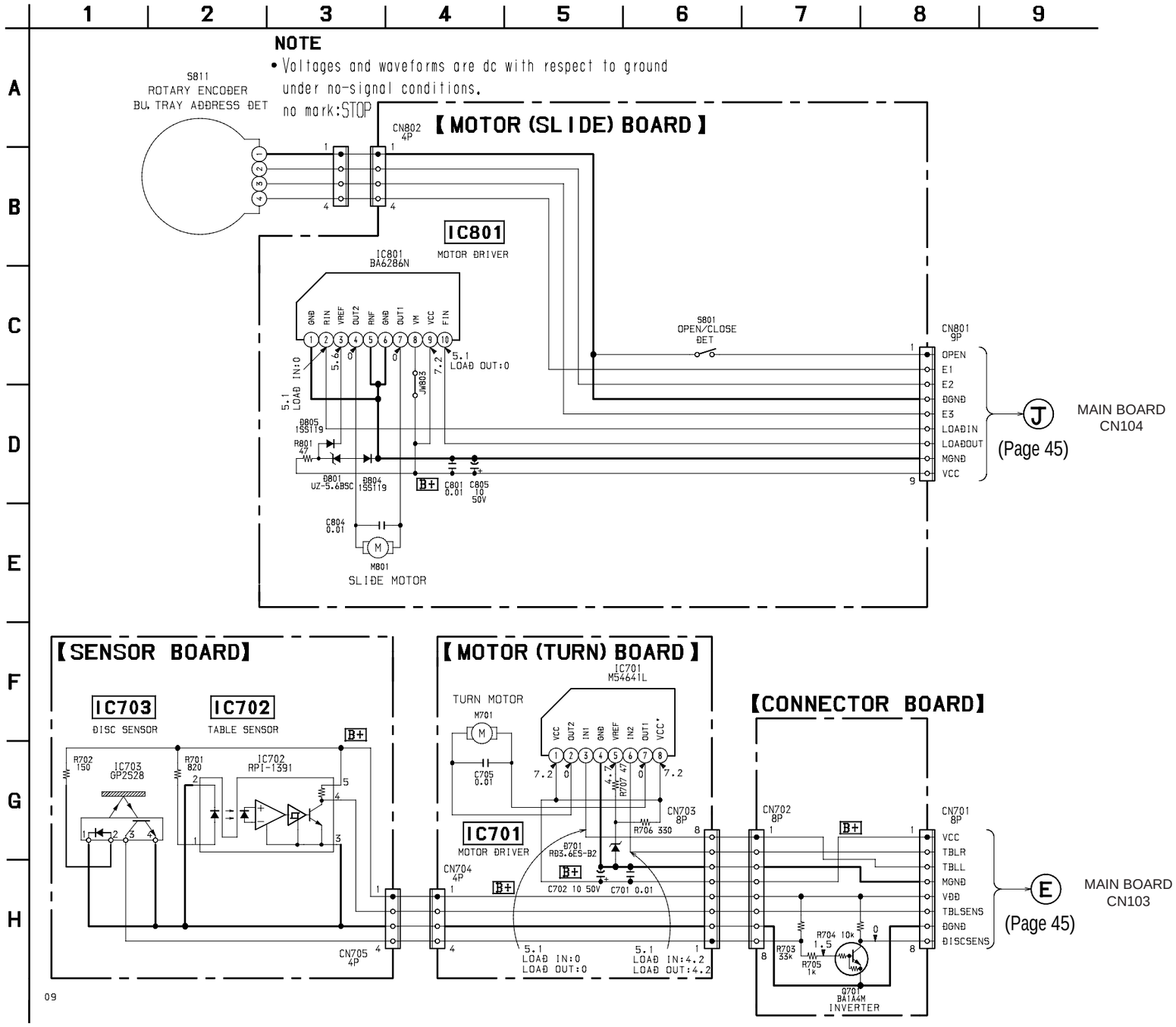
• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.





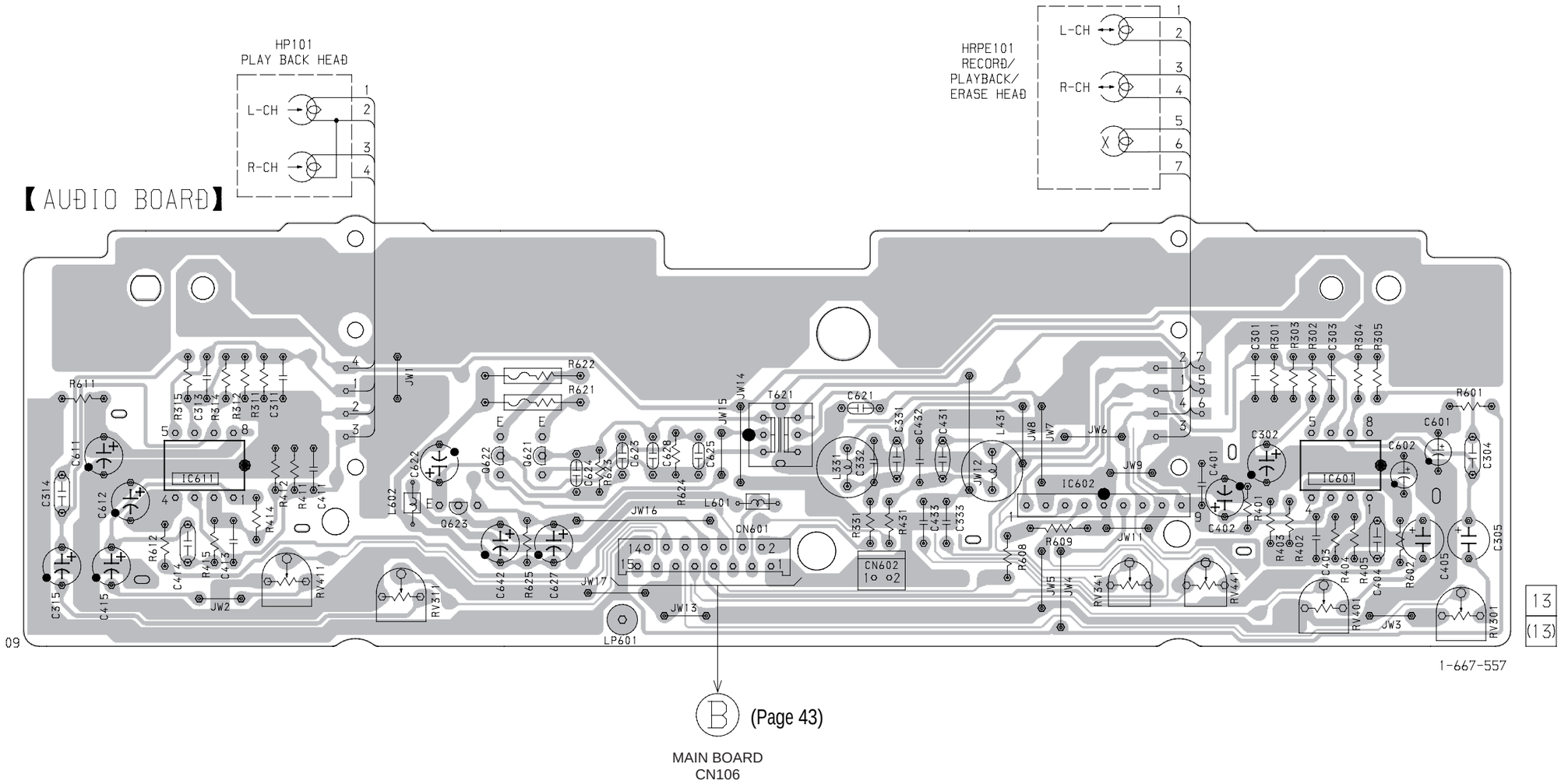
7-8. SCHEMATIC DIAGRAM – CD MOTOR Section –

• See page 67 for IC Block Diagrams. • See page 27 for Note on Schematic Diagram.



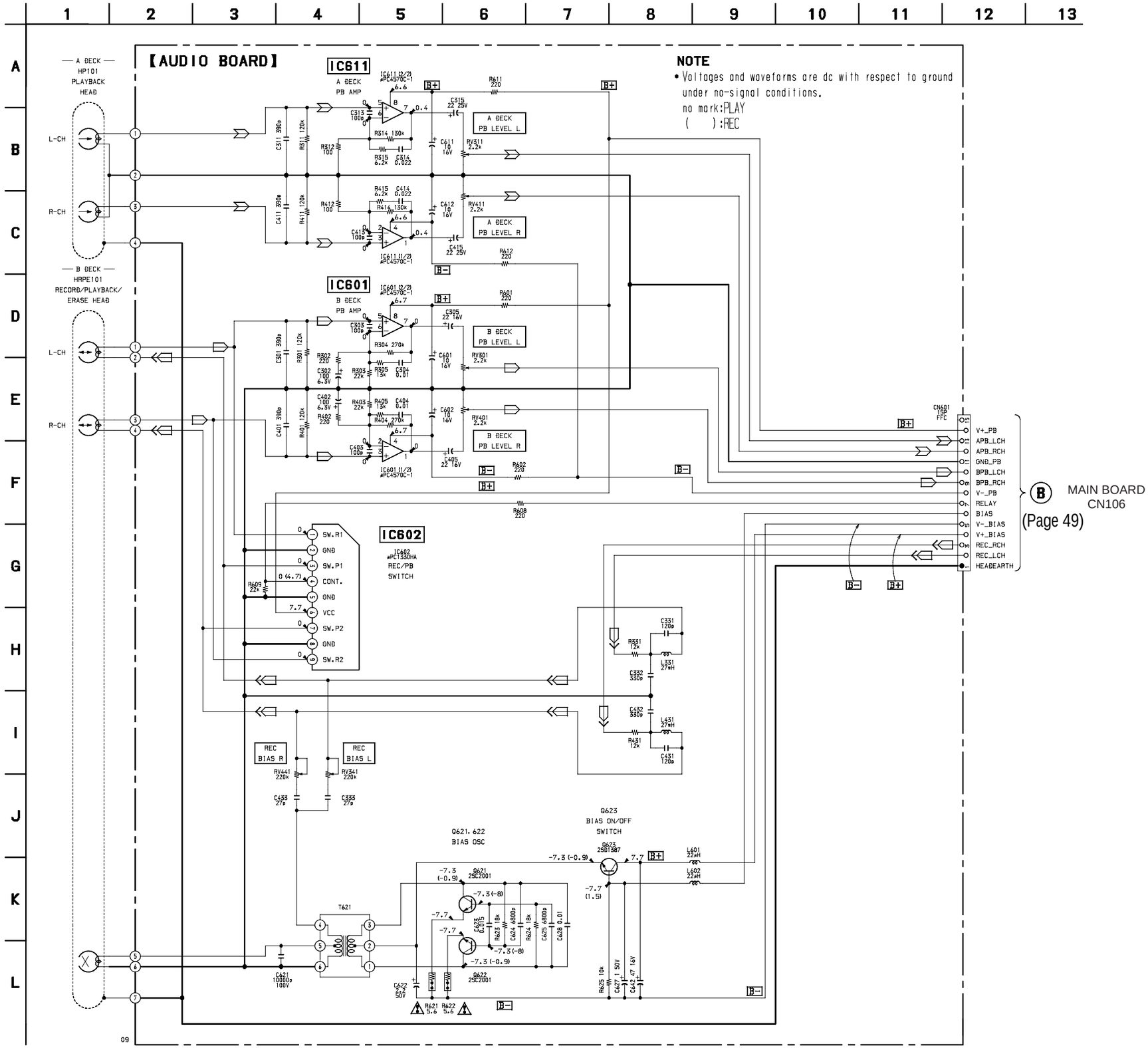
7-9. PRINTED WIRING BOARD – TAPE DECK Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.



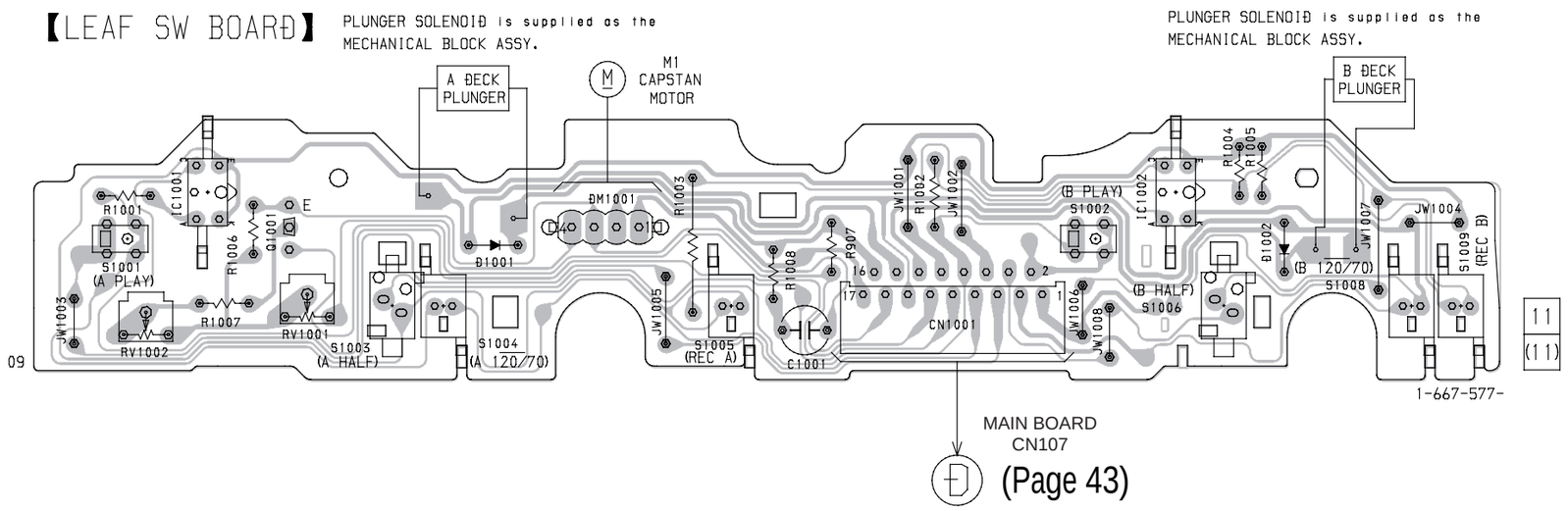
7-10. SCHEMATIC DIAGRAM – TAPE DECK Section –

• See page 67 for IC Block Diagrams. • See page 27 for Note on Schematic Diagram.



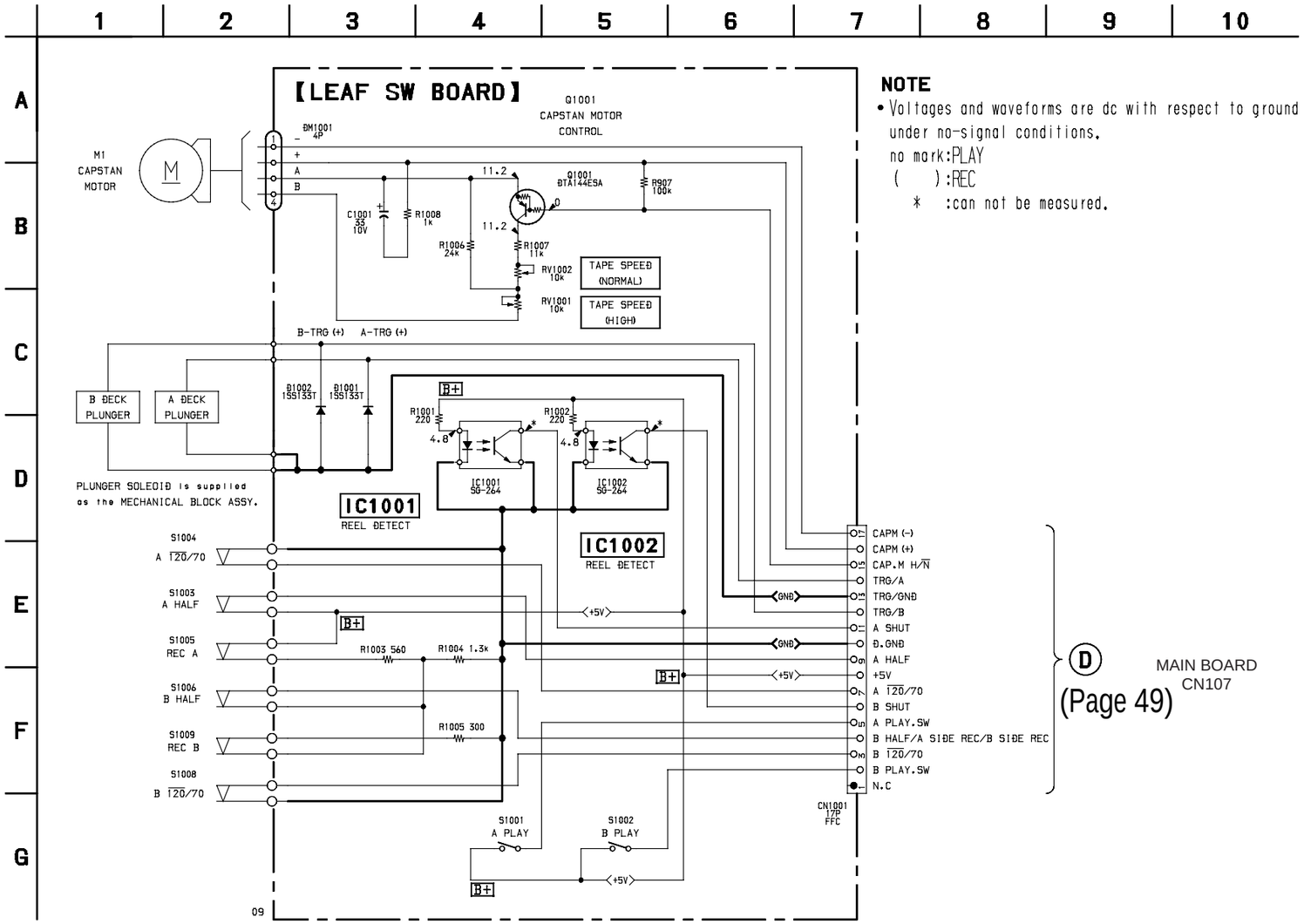
7-11. PRINTED WIRING BOARD – LEAF SW Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.



7-12. SCHEMATIC DIAGRAM – LEAF SW Section –

• See page 27 for Note on Schematic Diagram.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:PLAY
  ( ):REC
  * :can not be measured.

- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D141	G-9	Q162	D-8
D401	G-10	Q163	H-8
D501	E-5	Q191	D-11
D502	E-5	Q331	C-2
D503	E-5	Q332	D-2
D504	E-5	Q333	C-2
D505	E-6	Q334	D-2
D506	E-6	Q335	C-1
D507	F-3	Q336	E-2
D508	F-2	Q337	E-2
D901	I-6	Q338	F-2
D902	I-5	Q339	F-2
D903	I-6	Q340	E-2
D904	I-6	Q341	E-2
D905	G-6	Q342	E-2
D906	G-7	Q343	E-2
D907	H-4	Q431	G-9
D908	H-4	Q432	H-8
D909	I-5	Q433	H-9
D910	I-4	Q434	H-8
D911	I-4	Q435	H-8
D912	I-4	Q436	G-8
D913	G-3	Q437	G-8
D914	G-5	Q501	E-7
D915	I-3	Q571	E-6
		Q572	E-6
IC101	D-9	Q575	F-8
IC102	F-10	Q901	F-6
IC191	D-11	Q902	G-6
IC301	B-2	Q903	H-6
IC381	A-11	Q905	F-6
IC501	D-4	Q906	G-6
IC502	E-6	Q907	G-4
IC901	G-5	Q908	G-5
IC902	G-3	Q909	H-4
IC903	H-3	Q910	I-4
		Q913	G-6
Q111	F-9	Q914	F-7
Q112	F-9	Q951	G-7
Q113	H-8	Q952	G-7
Q161	E-8		

【MAIN BOARD】

FM/AM TUNER UNIT
(SUPPLIDE AS THE ASSEMBLED BLOCK)

(page 33) (J) MOTOR (SLIDE) BOARD CN801
(page 33) (E) CONNECTOR BOARD CN701
(page 30) (C) BD BOARD CN102

(B) AUDIO BOARD CN601 (page 37)
(D) LEAF SW BOARD CN1001 (page 41)
(F) PANEL BOARD CN601 (page 53)
(L) HP BOARD CN109 (page 59)
(I) TRANSFORMER BOARD CN11 (page 63)
(H) POWER AMP BOARD CN801 (page 60)

IC381 CD DIGITAL OUT OPTICAL
J101 MD/VIDEO (AUDIO) IN OUT
J191 SUPER WOOFER
TM401 SPEAKER IMPEDANCE USE 6-16Ω

(GRX5: E2, EA4, TH, MX, AUS/RX66)

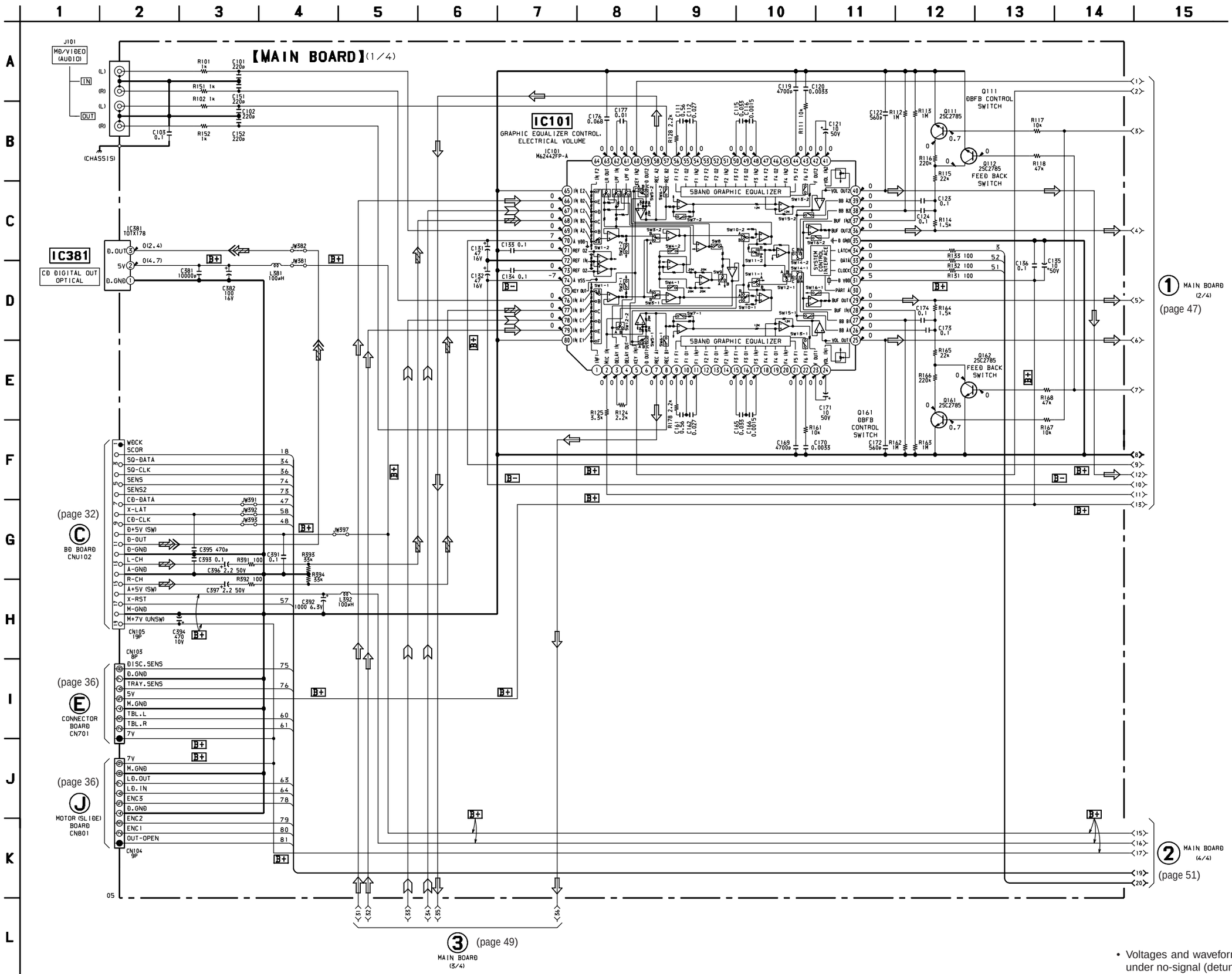
* R511, 512 (GRX5: E2, EA4, TH, MX, AUS)
JW507 (RX66)
JW508 (GRX5: E3, EA3, MY, SP, 1A, HK, TW, SAF)

(FOR ADJUSTMENT)

1-668-204-11 (11)

7-14. SCHEMATIC DIAGRAM – MAIN Section (1/4) –

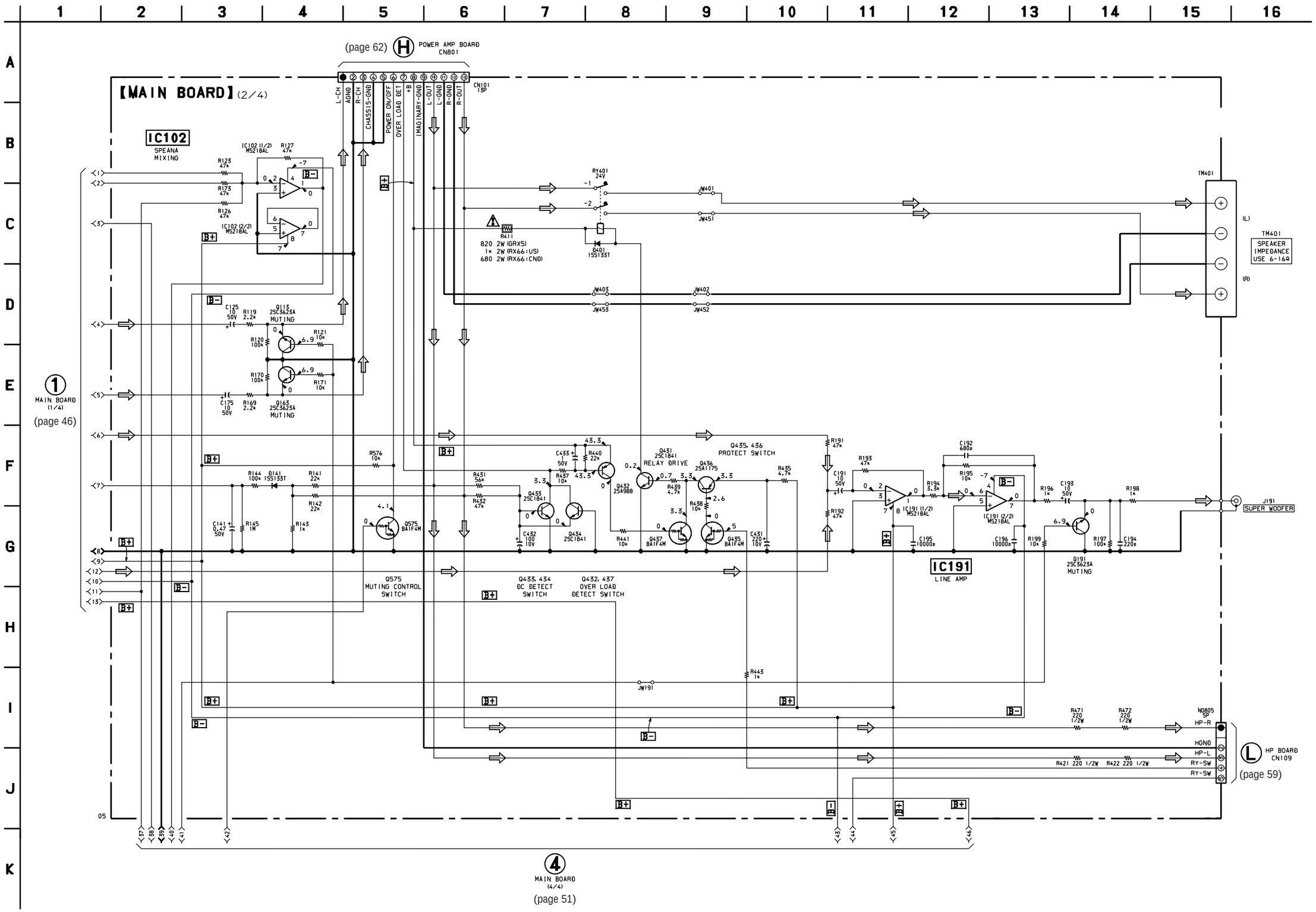
• See page 28 for Waveforms. • See page 27 for Note on Schematic Diagram. • See page 43 and 44 for Printed Wiring Board.



• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
( ) : CD

7-15. SCHEMATIC DIAGRAM – MAIN Section (2/4) –

• See page 28 for Waveforms. • See page 27 for Note on Schematic Diagram. • See page 43 and 44 for Printed Wiring Board.

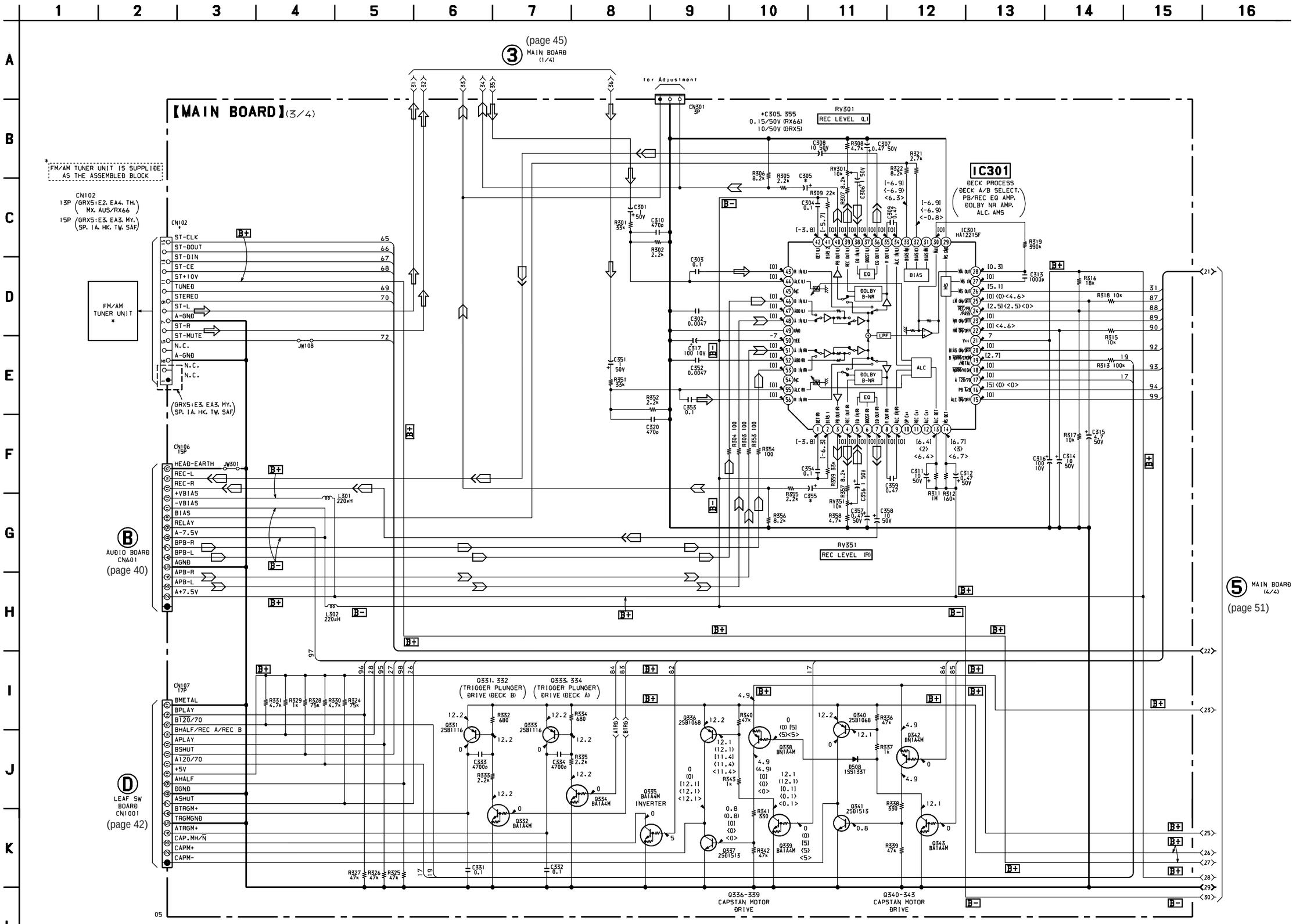


• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

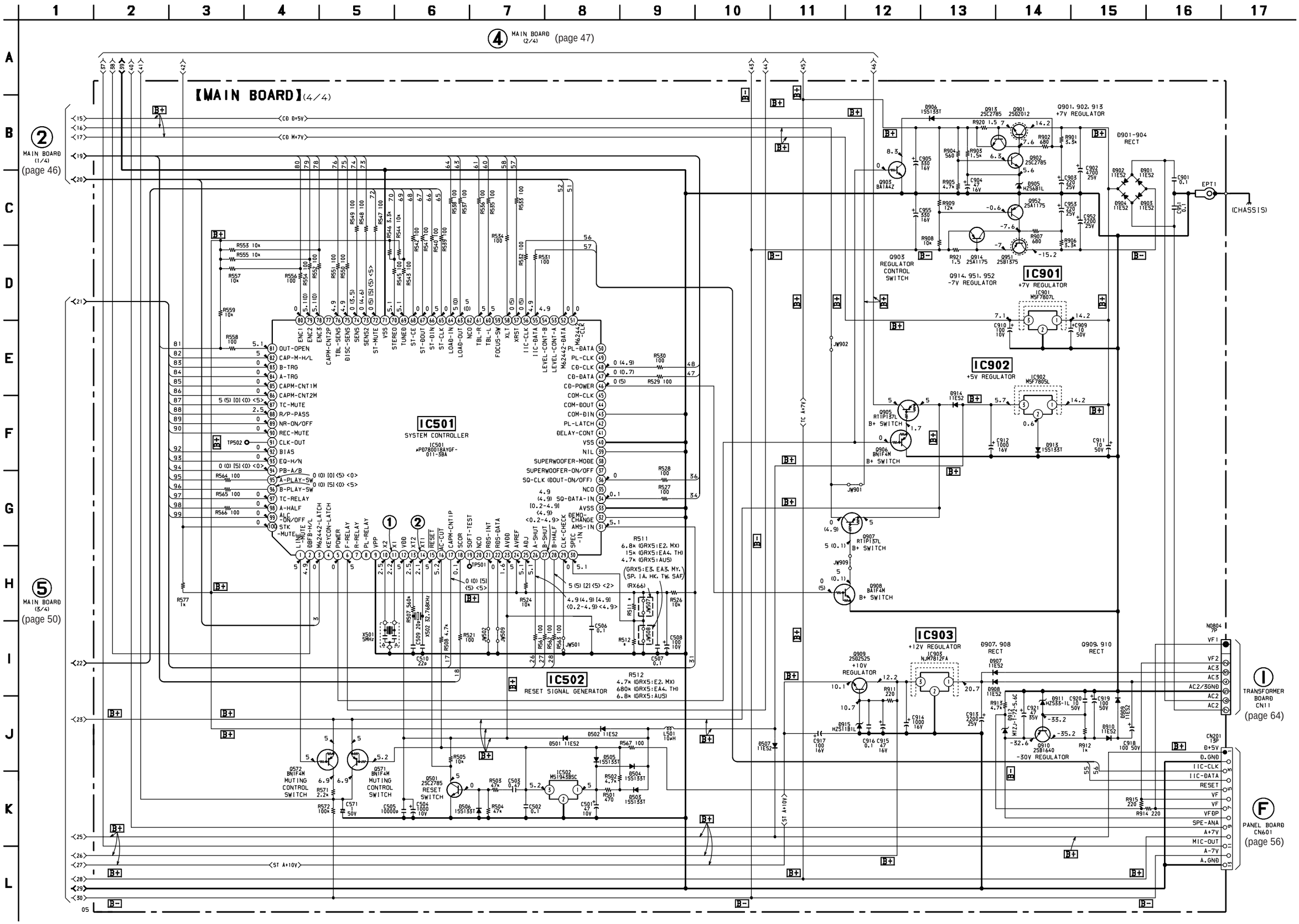
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

7-16. SCHEMATIC DIAGRAM – MAIN Section (3/4) –

• See page 28 for Waveforms. • See page 27 for Note on Schematic Diagram. • See page 43 and 44 for Printed Wiring Board.



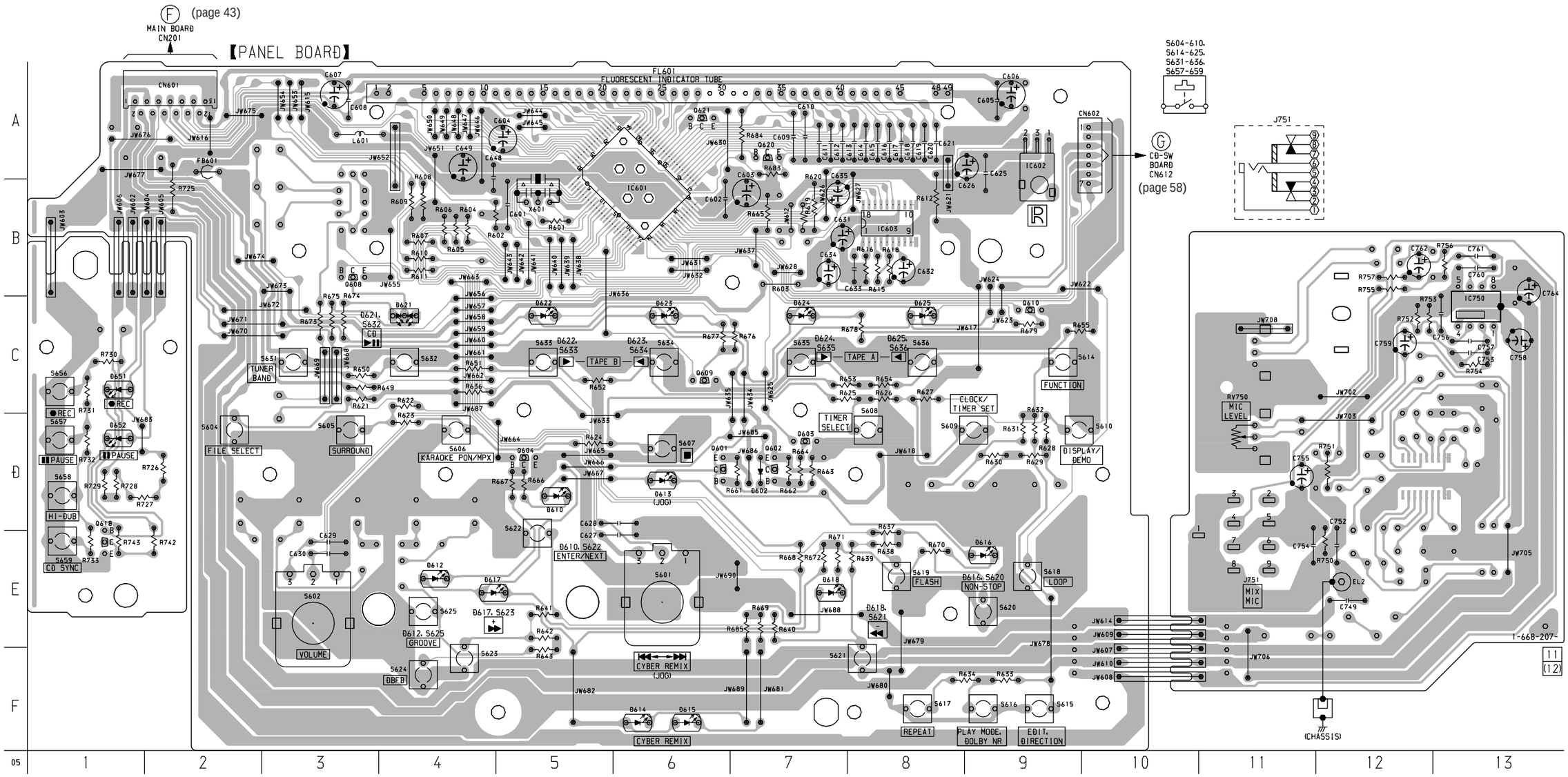
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM ( ) : CD { } : PB (DECK A) [ ] : PB (DECK B) < > : REC



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM ( ) : CD
  { } : PB (DECK A)
  [ ] : PB (DECK B)
  < > : REC

7-18. PRINTED WIRING BOARD – PANEL Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.

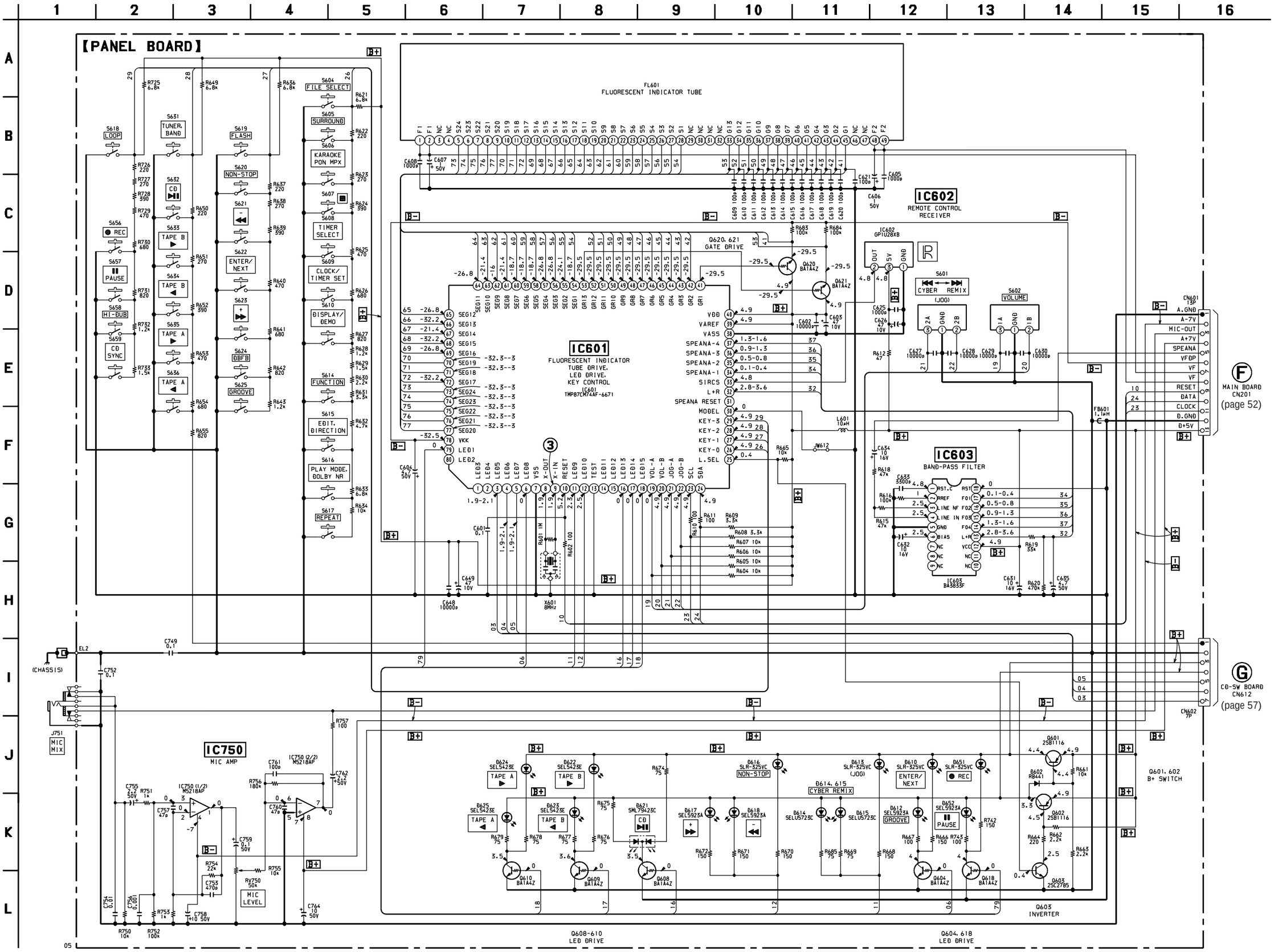


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D602	D-7	IC601	B-6
D610	D-5	IC602	A-9
D612	E-4	IC603	B-8
D613	D-6	IC750	C-13
D614	F-6		
D615	F-6	Q601	D-6
D616	E-9	Q602	D-7
D617	E-4	Q603	D-7
D618	E-7	Q604	D-5
D621	C-4	Q608	B-3
D622	C-5	Q609	C-6
D623	C-6	Q610	C-9
D624	C-7	Q618	E-1
D625	C-8	Q620	A-7
D651	C-1	Q621	A-6
D652	D-1		

7-19. SCHEMATIC DIAGRAM – PANEL Section –

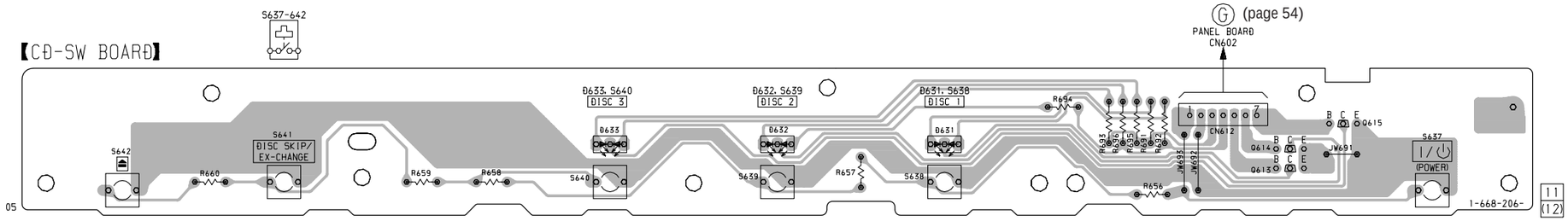
• See page 28 for Waveforms. • See page 67 for IC Block Diagrams. • See page 27 for Note on Schematic Diagram.



• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

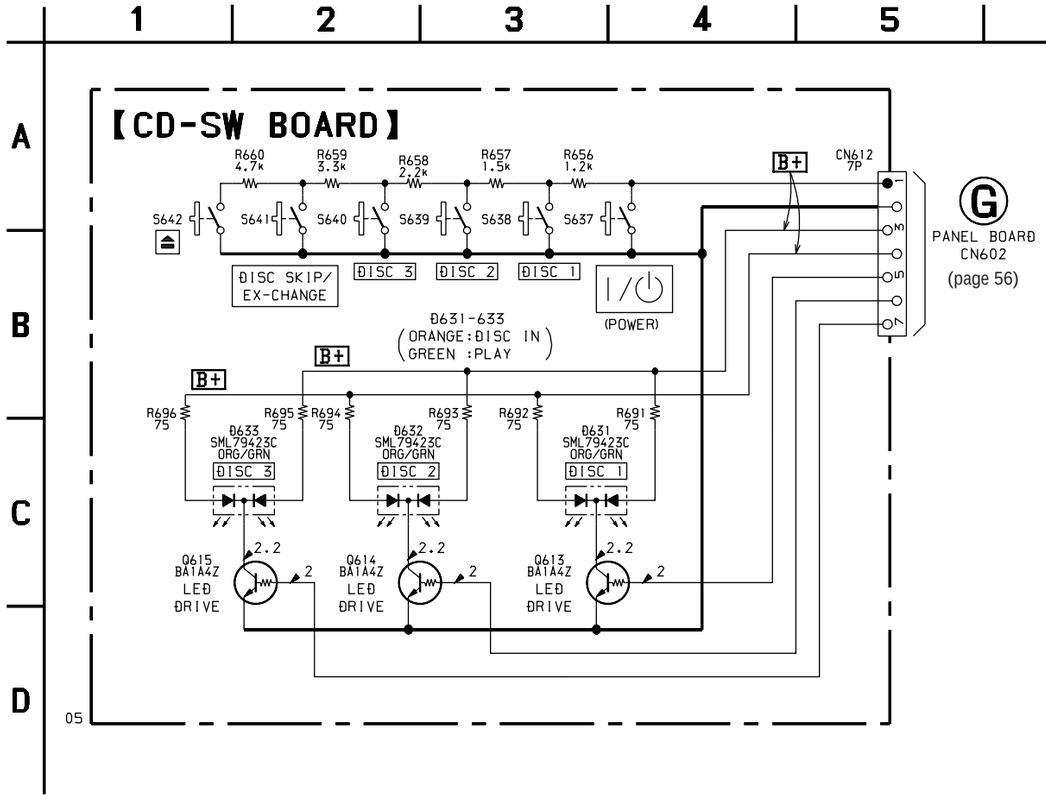
7-20. PRINTED WIRING BOARD – CD-SW Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.



7-21. SCHEMATIC DIAGRAM – CD-SW Section –

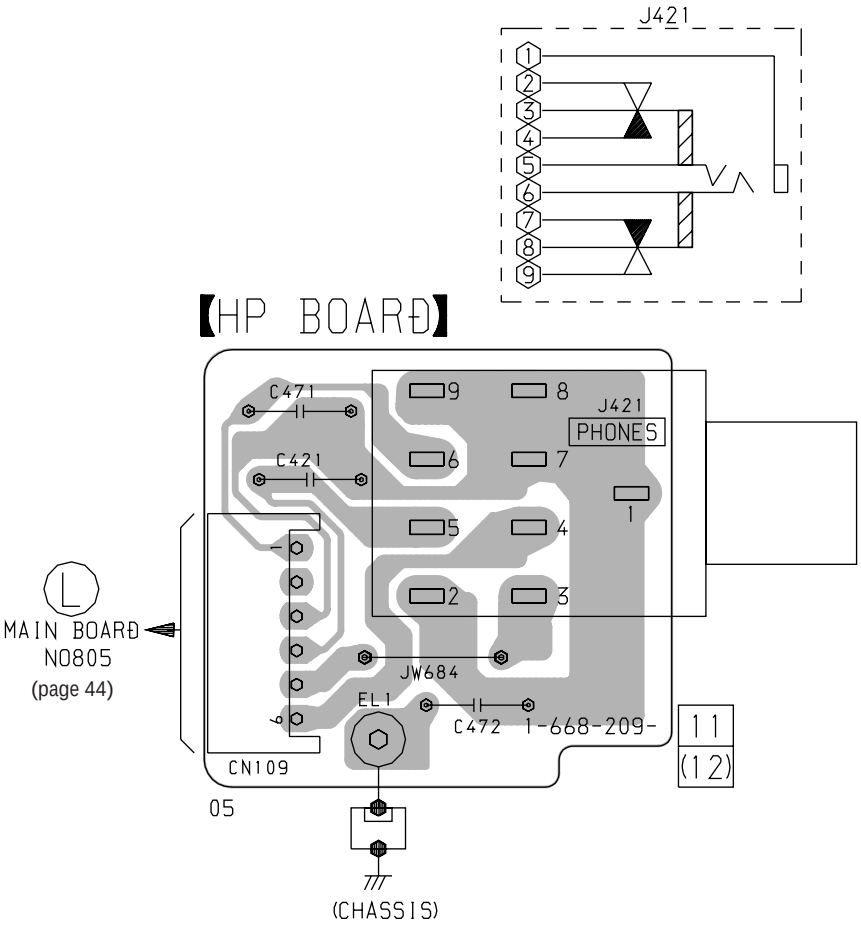
• See page 27 for Note on Schematic Diagram.



• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

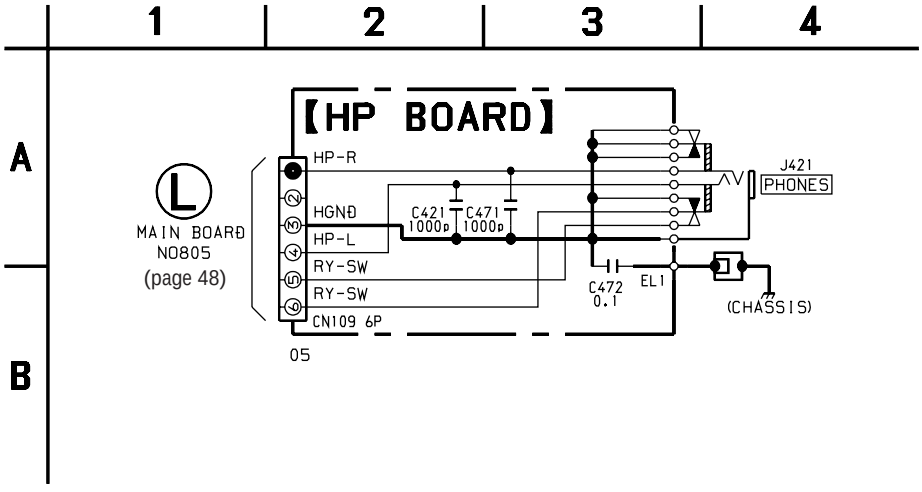
7-22. PRINTED WIRING BOARD – HP Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.



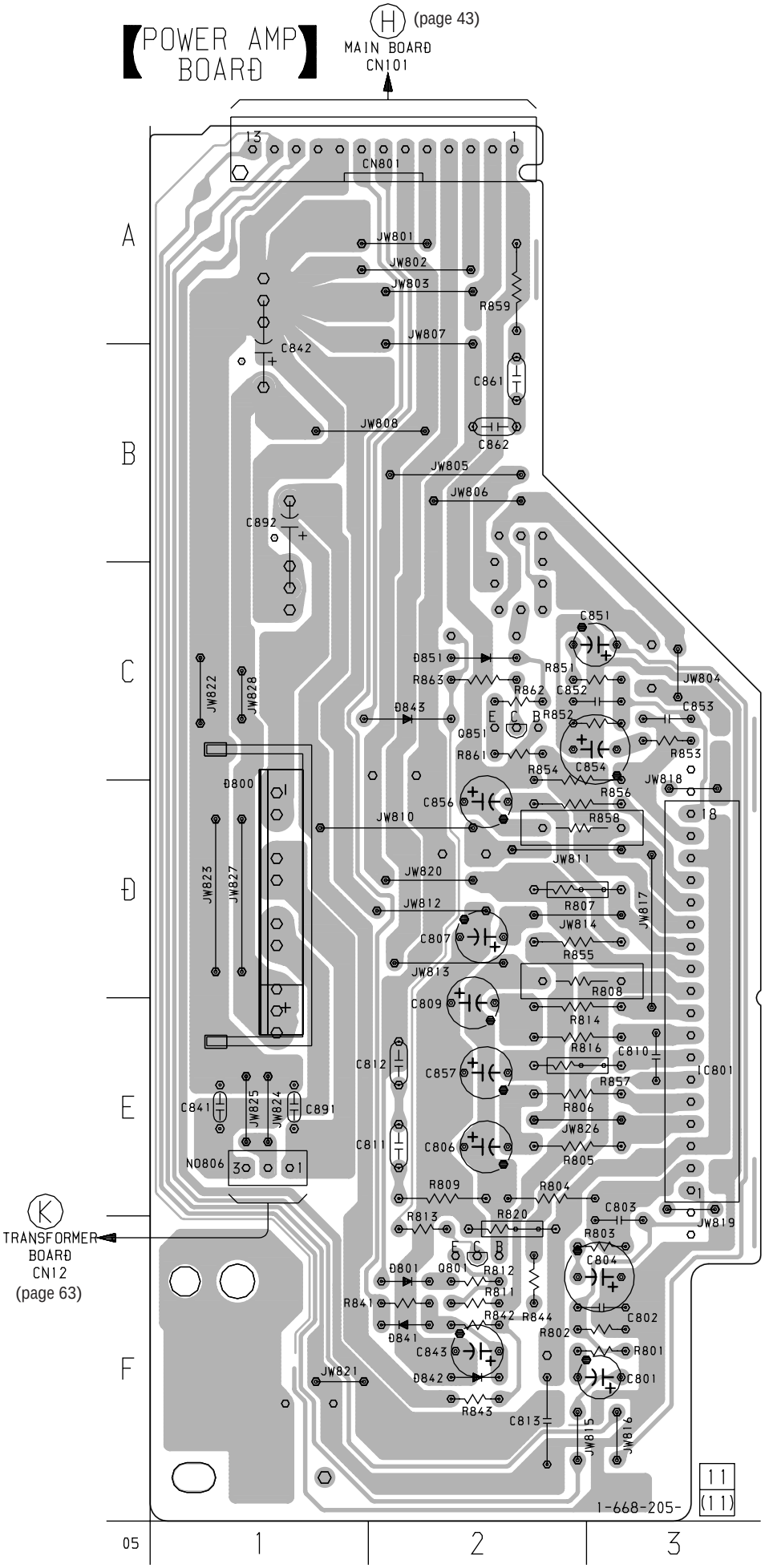
7-23. SCHEMATIC DIAGRAM – HP Section –

• See page 27 for Note on Schematic Diagram.



7-24. PRINTED WIRING BOARD – POWER AMP Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Boards.

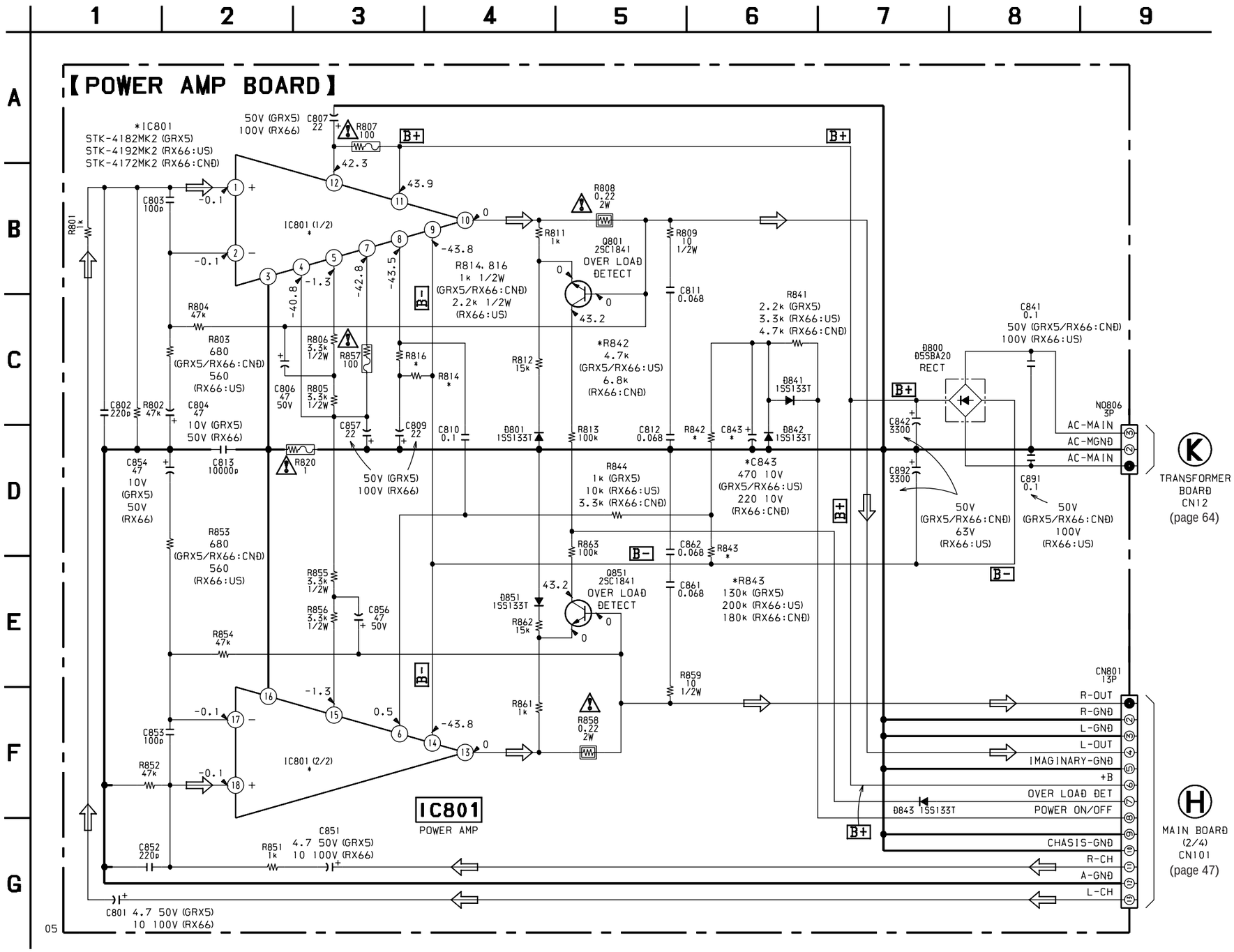


• **Semiconductor Location**

Ref. No.	Location
D800	D-1
D801	F-2
D841	F-2
D842	F-2
D843	C-2
D851	C-2
IC801	E-3
Q801	F-2
Q851	C-2

7-25. SCHEMATIC DIAGRAM – POWER AMP Section –

• See page 27 for Note on Schematic Diagram.

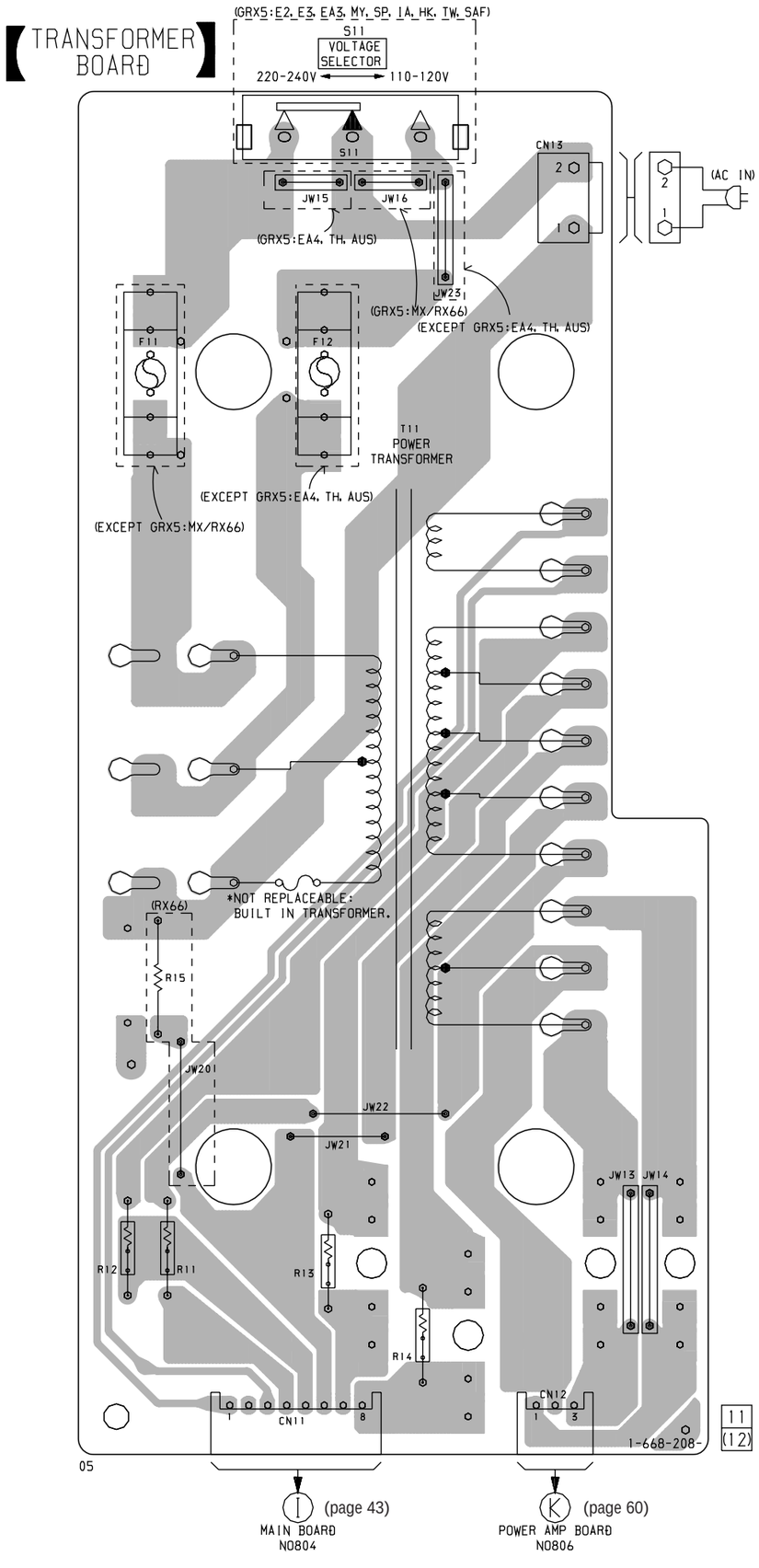


• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

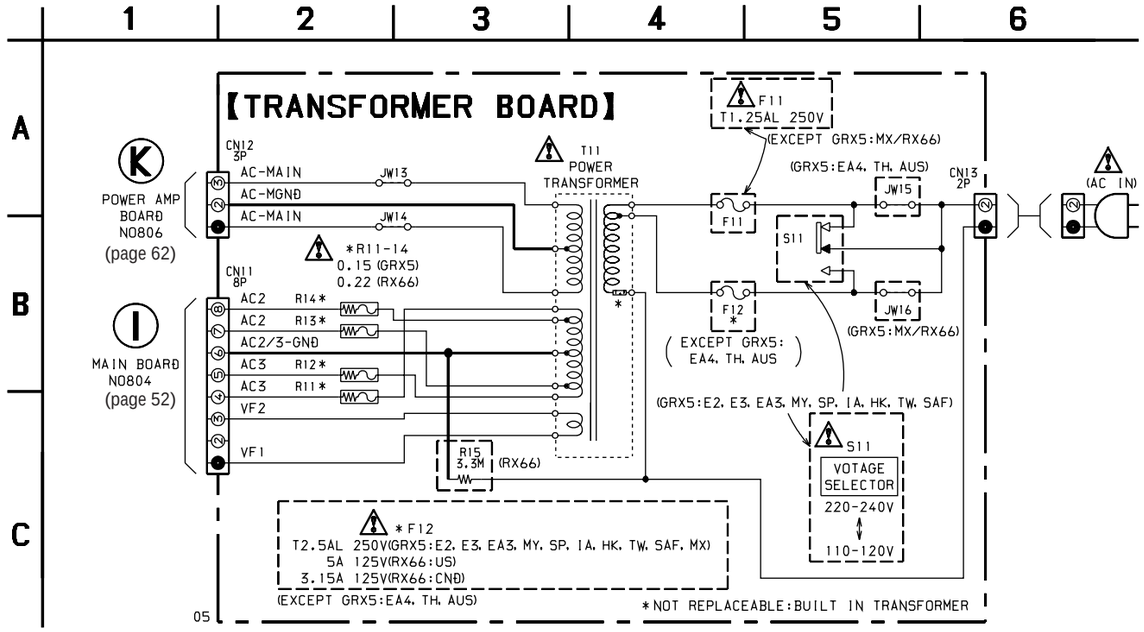
7-26. PRINTED WIRING BOARD – TRANSFORMER Section –

• See page 18 for Circuit Boards Location. • See page 27 for Note on Printed Wiring Board.



7-27. SCHEMATIC DIAGRAM – TRANSFORMER Section –

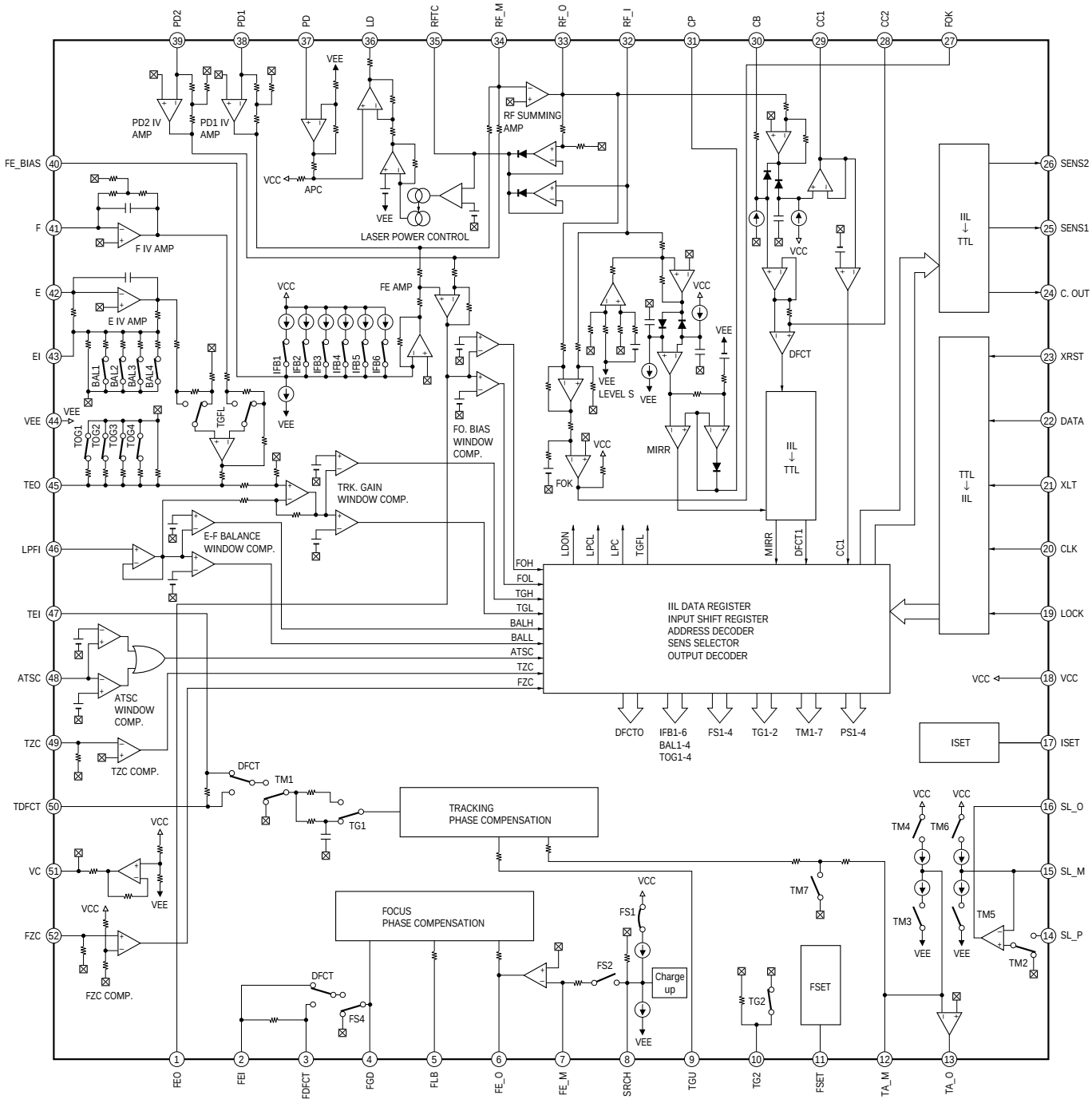
• See page 27 for Note on Schematic Diagram.



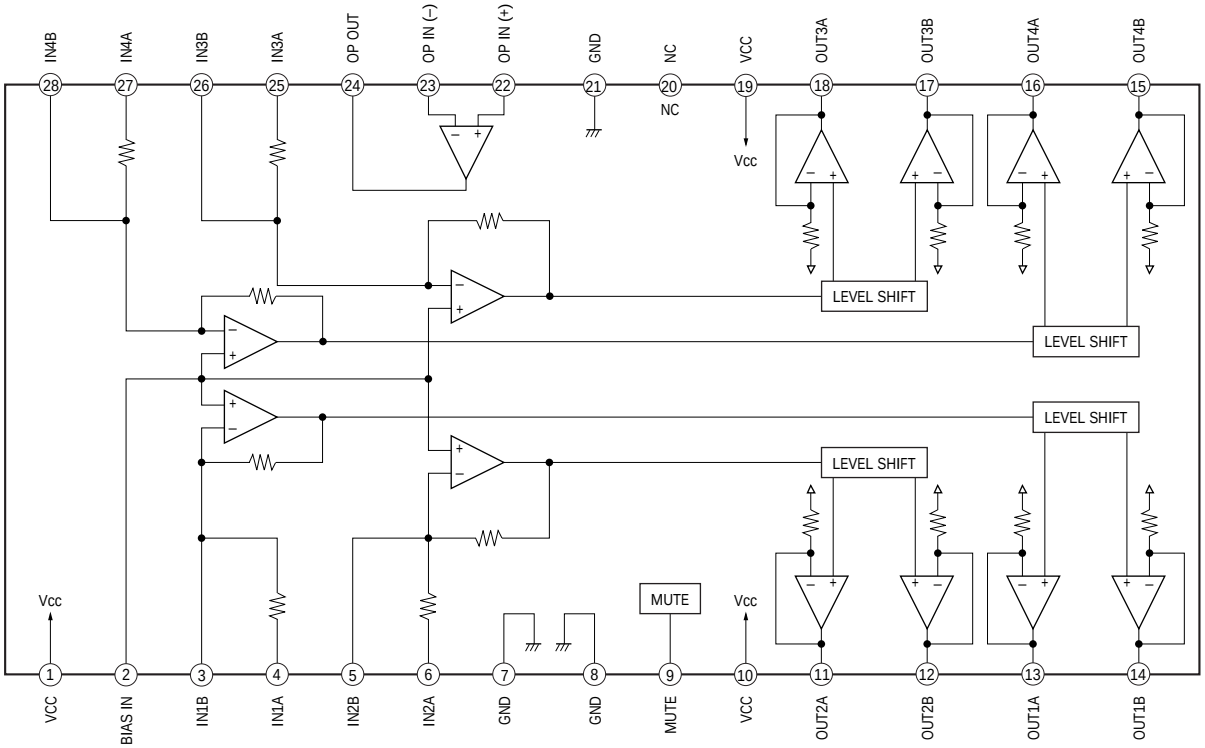
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

• IC Block Diagrams
– BD Board –

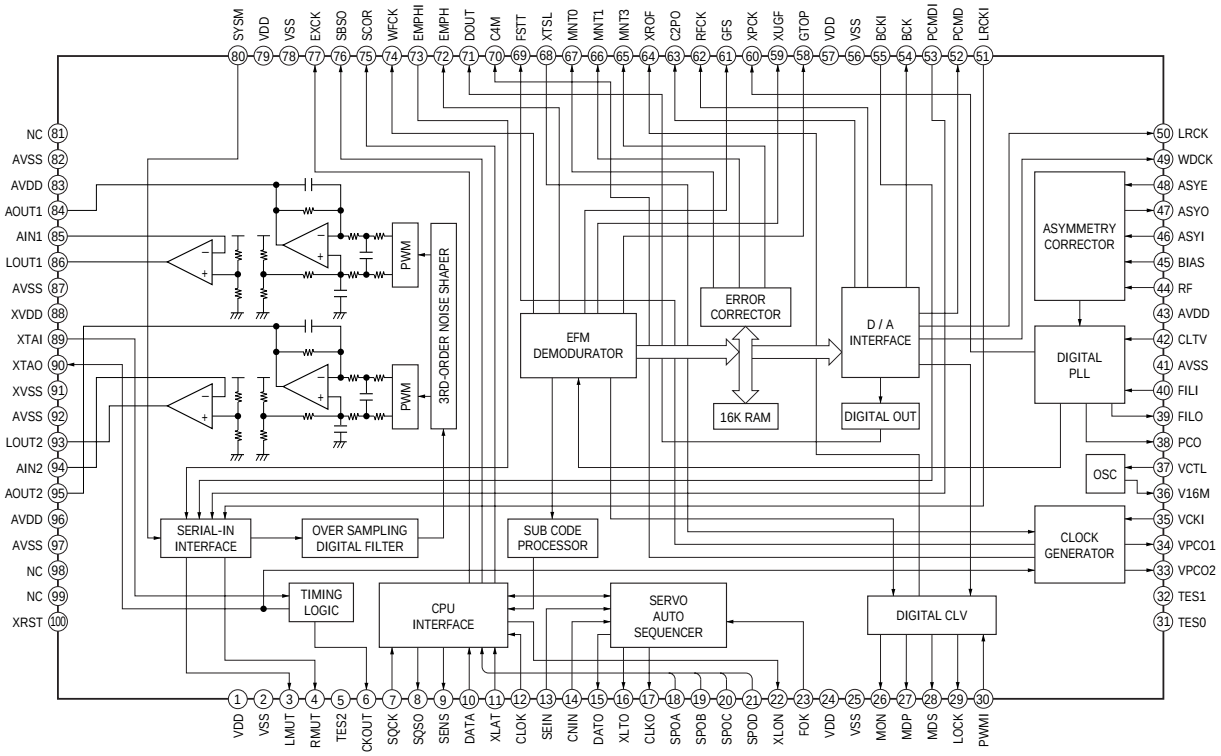
IC101 CXA1992AR



IC102 BA5941FP-E2

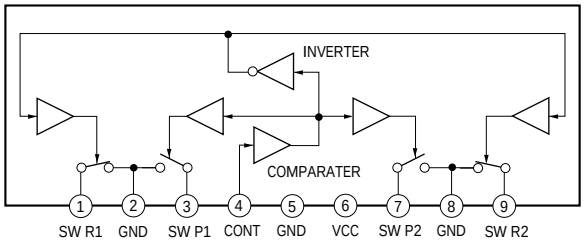


IC103 CXD2519Q



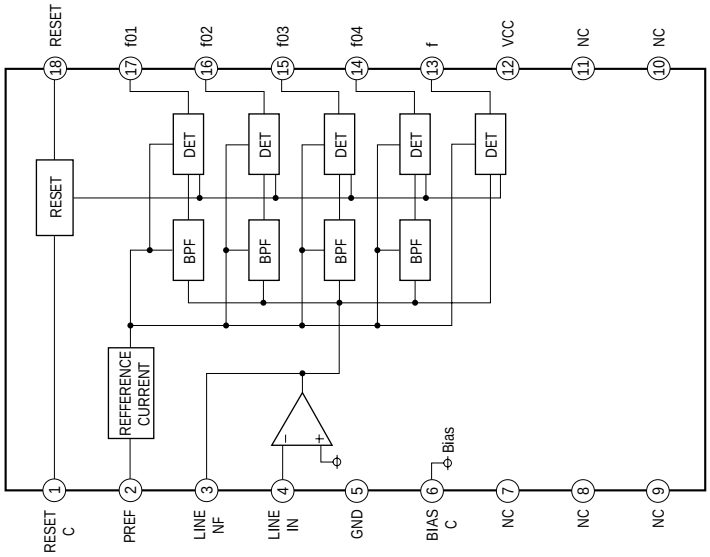
– AUDIO Board –

IC602 µPC1330HA



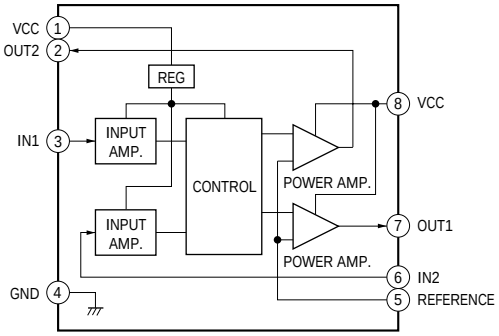
– PANEL Board –

IC603 BA3833FP



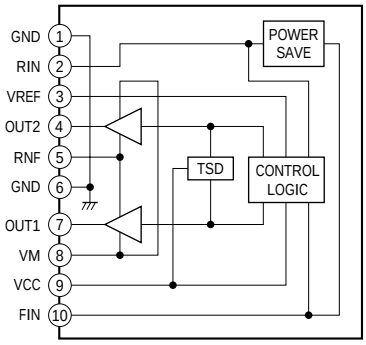
– MOTOR (TURN) Board –

IC701 M54641L



– MOTOR (SLIDE) Board –

IC801 BA6286N



7-28. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 μPD780018AYGF-011-3BA (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	LINE-MUTE	O	Line muting on/off control signal output terminal "L": muting on
2	DBFB-H/L	O	DBFB normal/high selection signal output to the M62442FP (IC101) "L": DBFB high, "H": DBFB low
3	M62442-LATCH	O	Serial data latch pulse output to the M62442FP (IC101)
4	KEYCON-LATCH	O	Serial data latch pulse output terminal Not used (open)
5	POWER	O	Power on/off control signal output for the audio system (+5V) and deck, panel, audio system (+7V) "L": power on, "H": standby
6	F-RELAY	O	Relay drive signal output for the speaker protect "H": on
7	R-RELAY	O	Relay drive signal output for the speaker protect "H": on Not used (open)
8	PL-RELAY	O	Relay drive signal output for the speaker protect "H": on Not used (open)
9	VPP	—	Ground terminal
10	X2	O	Main system clock output terminal (5 MHz)
11	X1	I	Main system clock input terminal (5 MHz)
12	VDD	—	Power supply terminal (+5V)
13	XT2	O	Sub system clock output terminal (32.768 kHz)
14	XT1	I	Sub system clock input terminal (32.768 kHz)
15	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC502) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
16	$\overline{\text{AC-CUT}}$	I	AC off detection signal input from the reset signal generator (IC502)
17	CAPM-CNT1P	O	Capstan motor (M1) drive signal output terminal
18	SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD2519Q (IC103)
19	SOFT-TEST	O	Output terminal for the software test (open)
20	NCO	O	Not used (open)
21	RDS-INT	I	Serial data reading clock signal input for the radio data system Not used (fixed at "L")
22	RDS-DATA	I	Serial data input for the radio data system Not used (fixed at "L")
23	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
24	AVREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
25	ADJ	I	Setting terminal for the CD test mode Normally: "H"
26	A-SHUT	I	Shut off detection signal input from the deck-A side reel pulse detector (IC1001)
27	B-SHUT	I	Shut off detection signal input from the deck-B side reel pulse detector (IC1002)
28	B-HALF	I	Detection input from the deck-B half detect switch (S1006)
29	CLK-CHECK	I	Not used (fixed at "L")
30	SPEC-IN	I	Setting terminal for the version
31	AMS-IN	I	Automatic music sensor detection signal input from the HA12215F (IC301)
32	DEMO-CHANGE	I	Setting terminal for the demonstration H/L Fixed at "L"
33	AVSS	—	Ground terminal (for A/D conversion)
34	SQ-DATA-IN	I	Sub-code Q data input from the CXD2519Q (IC103)
35	NCO	O	Not used (open)
36	SQ-CLK (D-OUT ON/OFF)	O	Sub-code Q data reading clock signal output to the CXD2519Q (IC103)
37	SUPERWOOFER- ON/OFF	O	Super woofer speaker on/off control signal output terminal Not used (open)
38	SUPERWOOFER MODE	O	Super woofer speaker mode control signal output terminal Not used (open)
39	NIL	I	Not used (fixed at "L")
40	VSS	—	Ground terminal
41	DELAY-CONT	O	Serial data latch pulse output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
42	PL-LATCH	O	Serial data latch pulse output terminal Not used (open)
43	COM-DIN	I	Serial data input terminal Not used (fixed at "L")
44	COM-DOUT	O	Serial data output terminal Not used (open)
45	COM-CLK	O	Serial data transfer clock signal output terminal Not used (open)
46	CD-POWER	O	Power on/off control signal output for the CD mechanism deck section "H": power on, "L": standby
47	CD-DATA	O	Serial data output to the CXD2519Q (IC103)
48	CD-CLK	O	Serial data transfer clock signal output to the CXD2519Q (IC103)
49	PL-CLK	O	Serial data transfer clock signal output terminal Not used (open)
50	PL-DATA	O	Serial data output terminal Not used (open)
51	M62442-CLK	O	Serial data transfer clock signal output to the M62442FP (IC101)
52	M62442-DATA	O	Serial data output to the M62442FP (IC101)
53	LEVEL-CONT-A	O	Level control signal output terminal Not used (open)
54	LEVEL-CONT-B	O	Level control signal output terminal Not used (open)
55	IIC-DATA	I/O	Communication data bus with the fluorescent indicator tube driver (IC601)
56	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the fluorescent indicator tube driver (IC601)
57	$\overline{\text{XRST}}$	O	Reset signal output to the CXA1992AR (IC101), BA5941FP (IC102) and CXD2519Q (IC103) on the CD mechanism deck section "L": reset
58	XLT	O	Serial data latch pulse output to the CXD2519Q (IC103)
59	FOCUS-SW	O	Focus control signal output terminal Not used (open)
60	TBL-L	O	Motor drive signal output to the disc tray turn motor driver (IC701) *1
61	TBL-R	O	Motor drive signal output to the disc tray turn motor driver (IC701) *1
62	NCO	O	Not used (open)
63	LOAD-OUT	O	Motor drive signal output to the disc tray slide motor driver (IC801) *2
64	LOAD-IN	O	Motor drive signal output to the disc tray slide motor driver (IC801) *2
65	ST-CLK	O	PLL serial data transfer clock signal output to the FM/AM tuner unit
66	ST-DIN	I	PLL serial data input from the FM/AM tuner unit
67	ST-DOUT	O	PLL serial data output to the FM/AM tuner unit
68	ST-CE	O	PLL chip enable signal output to the FM/AM tuner unit
69	TUNED	I	Tuning detection signal input from the FM/AM tuner unit "L": tuned
70	STEREO	I	FM stereo detection signal input from the FM/AM tuner unit "L": stereo
71	VSS	—	Ground terminal
72	ST-MUTE	O	Tuner muting control signal output to the FM/AM tuner unit "L": muting on
73	SENS2	I	Internal status (SENSE) signal input from the CXA1992AR (IC101)
74	SENS	I	Internal status (SENSE) signal input from the CXD2519Q (IC103)

*1 Disc tray turn motor (M701) control

Mode / Terminal	STOP	COUNTER-CLOCKWISE	CLOCKWISE	BRAKE
TB-L (pin ⑥⓪)	"H"	"L"	"H"	"L"
TB-R (pin ⑥①)	"H"	"H"	"L"	"L"

*2 Disc tray slide motor (M801) control

Mode / Terminal	STOP	TABLE IN	TABLE OUT	BRAKE
LOAD-OUT (pin ⑥③)	"H"	"H"	"L"	"L"
LOAD-IN (pin ⑥④)	"H"	"L"	"H"	"L"

Pin No.	Pin Name	I/O	Function
75	DISC-SENS	I	Disc status detection signal input from the disc sensor (IC703)
76	TBL-SENS	I	Disc tray status detection signal input from the disc tray sensor (IC702)
77	CAPM-CNT2P	O	Capstan motor (M1) drive signal output terminal
78	ENC3	I	Detection signal input from the disc tray address detect rotary encoder (S811)
79	ENC2	I	
80	ENC1	I	
81	OUT-OPEN	I	Detection signal input from the disc tray open/close detect switch (S801) “L”: open, “H”: close
82	CAP-M-H/L	O	High/normal speed selection signal output of the capstan motor (M1) “L”: high speed, “H”: normal speed
83	B-TRG	O	Deck-B side trigger plunger (SL2) drive signal output terminal
84	A-TRG	O	Deck-A side trigger plunger (SL1) drive signal output terminal
85	CAPM-CNT1M	O	Capstan motor (M1) drive signal output terminal
86	CAPM-CNT2M	O	Capstan motor (M1) drive signal output terminal
87	TC-MUTE	O	Line muting on/off selection signal output to the HA12215F (IC301) “L”: muting off, “H”: muting on
88	R/P-PASS	O	Recording/playback/pass selection signal output to the HA12215F (IC301) “L”: recording mode
89	NR-ON/OFF	O	Dolby NR on/off selection signal output to the HA12215F (IC301) “L”: dolby off, “H”: dolby on
90	REC-MUTE	O	Recording muting on/off selection signal output to the HA12215F (IC301) “L”: muting on, “H”: muting off
91	CLK-OUT	O	Clock output for the check Not used (open)
92	BIAS	O	Recording bias on/off selection signal output to the HA12215F (IC301) “L”: bias off, “H”: bias on
93	EQ-H/N	O	Normal/high speed selection signal output to the HA12215F (IC301) “L”: normal speed, “H”: high speed
94	PB-A/B	O	Deck-A/B selection signal output to the HA12215F (IC301) “L”: deck-A, “H”: deck-B
95	A-PLAY-SW	I	Detection input from the deck- A play detect switch (S1001) “H”: deck-A play
96	B-PLAY-SW	I	Detection input from the deck- B play detect switch (S1002) “H”: deck-B play
97	TC-RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) “L”: playback, “H”: recording
98	A-HALF	I	Detection input from the deck-A cassette detect switch (S1003) “L”: cassette in, “H”: no cassette
99	ALC-ON/OFF	O	Automatic limiter control signal output to the HA12215F (IC301) “L”: limiter on
100	STK-MUTE	O	Power amplifier on/off selection signal output terminal “L”: on, “H”: standby

• **PANEL BOARD IC601 TMP87CM74AF-6671**

(FLUORESCENT INDICATOR TUBE DRIVE, LED DRIVE, KEY CONTROL)

Pin No.	Pin Name	I/O	Function
1	LED3	O	LED drive signal output terminal Not used (open)
2	LED4	O	LED drive signal output terminal Not used (open)
3	LED5	O	LED drive signal output terminal (DISC 3)
4	LED6	O	LED drive signal output terminal (DISC 2)
5	LED7	O	LED drive signal output terminal (DISC 1)
6	LED8	O	LED drive signal output terminal (ENTER, GROOVE)
7	VSS	—	Ground terminal
8	X-OUT	O	System clock output terminal (8 MHz)
9	X-IN	I	System clock input terminal (8 MHz)
10	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC502) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
11	LED9	O	LED drive signal output terminal (JOG)
12	LED10	O	LED drive signal output terminal (NON-STOP, + ▶▶, – ◀◀)
13	TEST	I	Connected to ground
14	LED11	O	LED drive signal output terminal Not used (open)
15	LED12	O	LED drive signal output terminal Not used (open)
16	LED13	O	LED drive signal output terminal (CD ▶ ❚❚)
17	LED14	O	LED drive signal output terminal (TAPE B ▶/◀)
18	LED15	O	LED drive signal output terminal (TAPE A ▶/◀)
19	VOL-A	I	Rotary encoder pulse input from the S602 (VOLUME)
20	VOL-B	I	Rotary encoder pulse input from the S602 (VOLUME)
21	JOG-A	I	Jog dial pulse input from the S601 (JOG)
22	JOG-B	I	Jog dial pulse input from the S601 (JOG)
23	SCL	I/O	Communication data reading clock signal input or transfer clock signal output with the system controller (IC501)
24	SDA	I/O	Communication data bus with the system controller (IC501)
25	L.SEL	O	LED selection signal output terminal
26	KEY-0	I	Key input terminal (A/D input) (S604 to 610, 614 to 617) FILE SELECT, SURROUND, KARAOKE PON/MPX, ■, TIMER SELECT, CLOCK/ TIMER SET, DISPLAY/DEMO, FUNCTION, EDIT, PLAY MODE, REPEAT keys input
27	KEY-1	I	Key input terminal (A/D input) (S619 to 625) FLASH, NON-STOP, – ◀◀, ENTER, + ▶▶ , DBFB, GROOVE keys input
28	KEY-2	I	Key input terminal (A/D input) (S631 to 642) TUNER/BAND, CD ▶ ❚❚, TAPE B ▶/◀, TAPE A ▶/◀, I / ⏻ (POWER), DISC 1/2/3, DISC SKIP/EX-CHANGE, ⏏ keys input
29	KEY-3	I	Key input terminal (A/D input) (S618, 656 to 659) LOOP, ● REC, ❚❚ PAUSE, HI-DUB, CD SYNC, keys input
30	MODEL	I	Destination setting terminal
31	SPEANA RESET	O	Reset signal output to the spectrum analyzer band-pass filter (IC603) "H": reset
32	L+R	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for VACS, non-stop signal)
33	SIRCS	I	Remote control signal input from the remote control receiver (IC602)
34	SPEANA-1	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for low frequency)
35	SPEANA-2	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for low and middle frequency)

Pin No.	Pin Name	I/O	Function
36	SPEANA-3	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for middle and high frequency)
37	SPEANA-4	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for high frequency)
38	VASS	—	Ground terminal
39	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
40	VDD	—	Power supply terminal (+5V)
41 to 53	GR1 to GR13	O	Grid drive signal output to the fluorescent indicator tube (FL601)
54 to 69	SEG1 to SEG16	O	Segment drive signal output to the fluorescent indicator tube (FL601)
70 to 72	SEG19 to SEG17	O	Segment drive signal output to the fluorescent indicator tube (FL601)
73 to 77	SEG24 to SEG20	O	Segment drive signal output to the fluorescent indicator tube (FL601)
78	VKK	—	Power supply terminal (–30V) (for fluorescent indicator tube drive)
79	LED1	O	LED drive signal output terminal (● REC, ❚❚ PAUSE)
80	LED2	O	LED drive signal output terminal Not used (open)

SECTION 8
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation

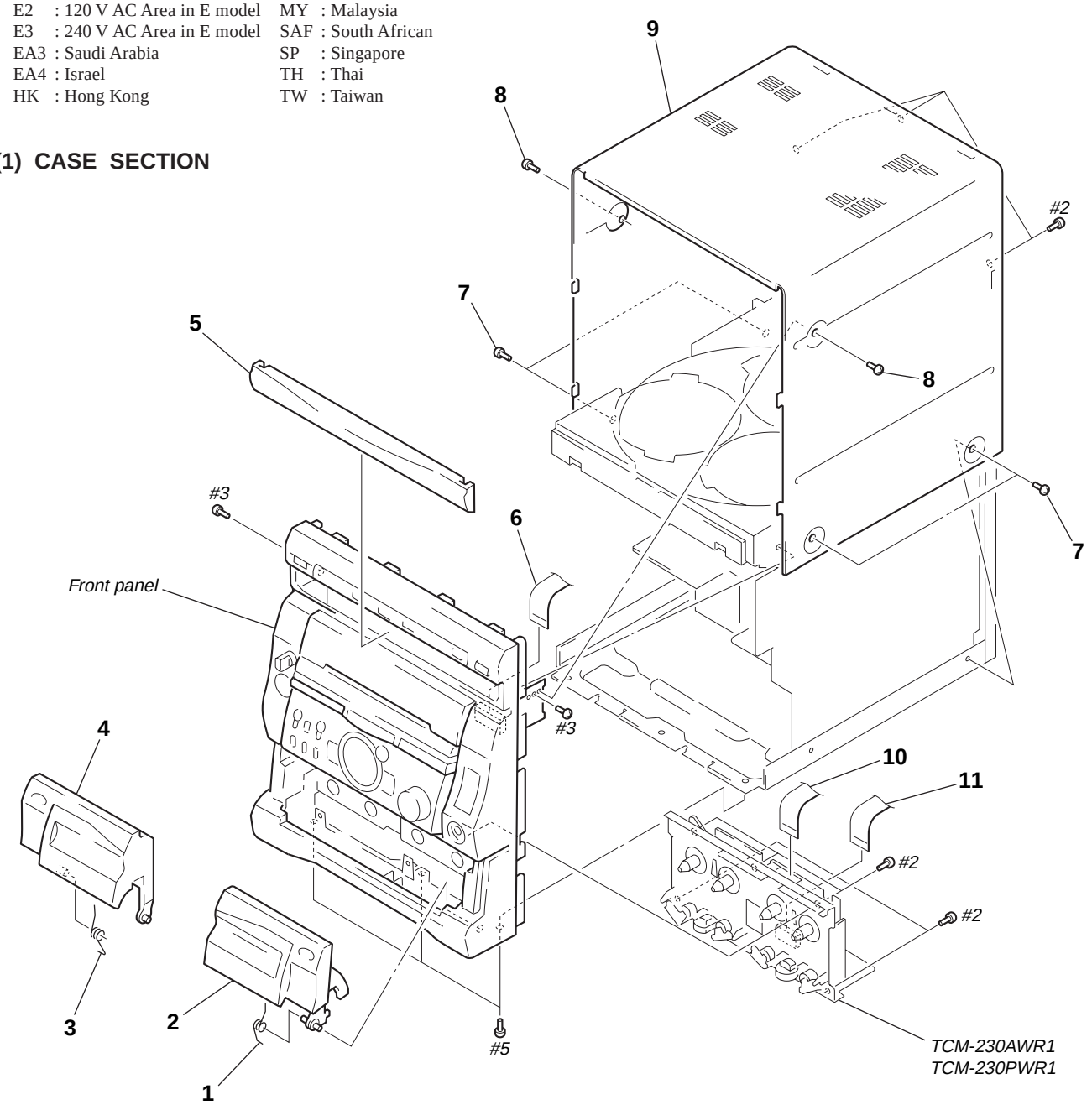
AUS	: Australian	IA	: Indonesian
CND	: Canadian	MX	: Mexican
E2	: 120 V AC Area in E model	MY	: Malaysia
E3	: 240 V AC Area in E model	SAF	: South African
EA3	: Saudi Arabia	SP	: Singapore
EA4	: Israel	TH	: Thai
HK	: Hong Kong	TW	: Taiwan

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

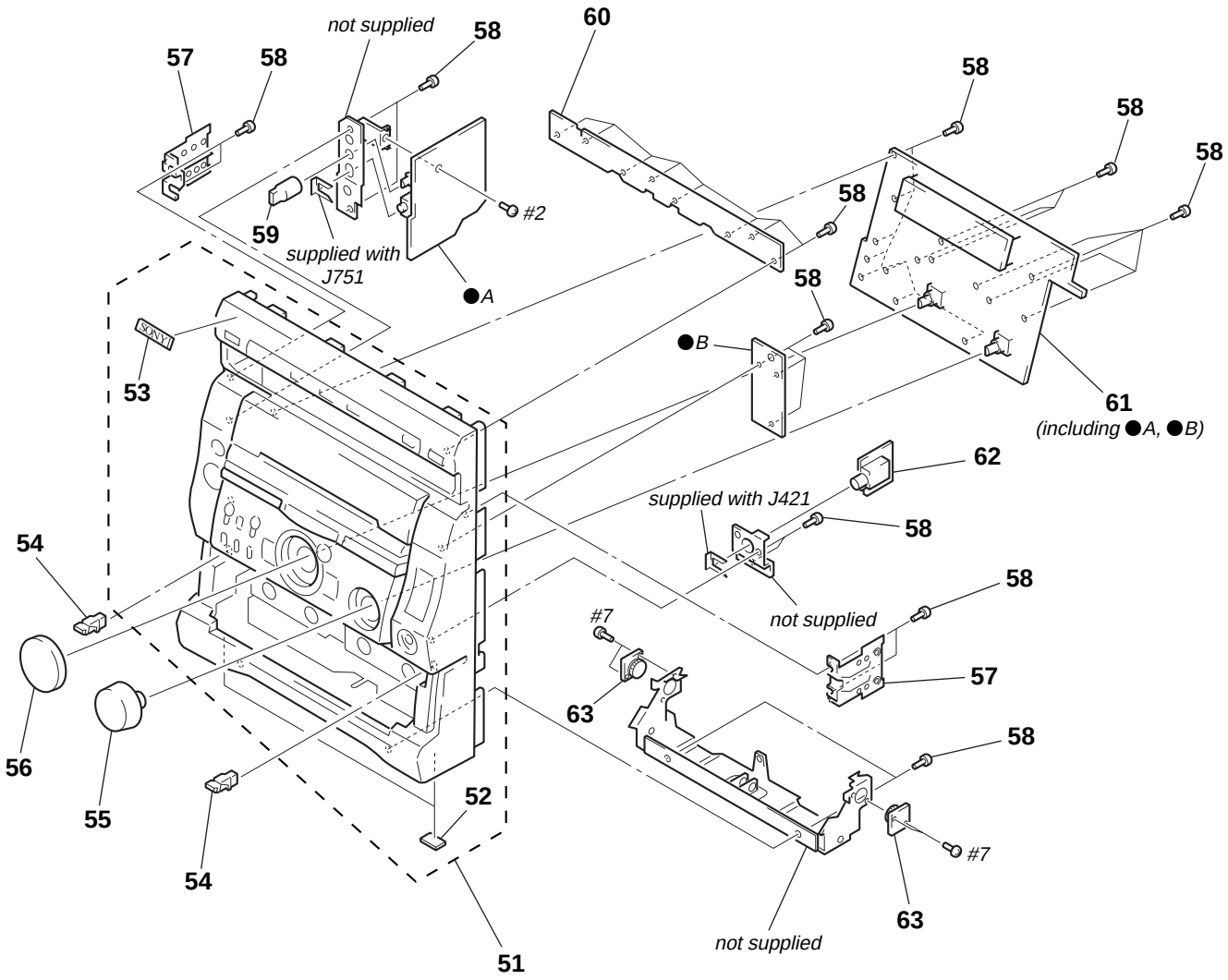
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CASE SECTION



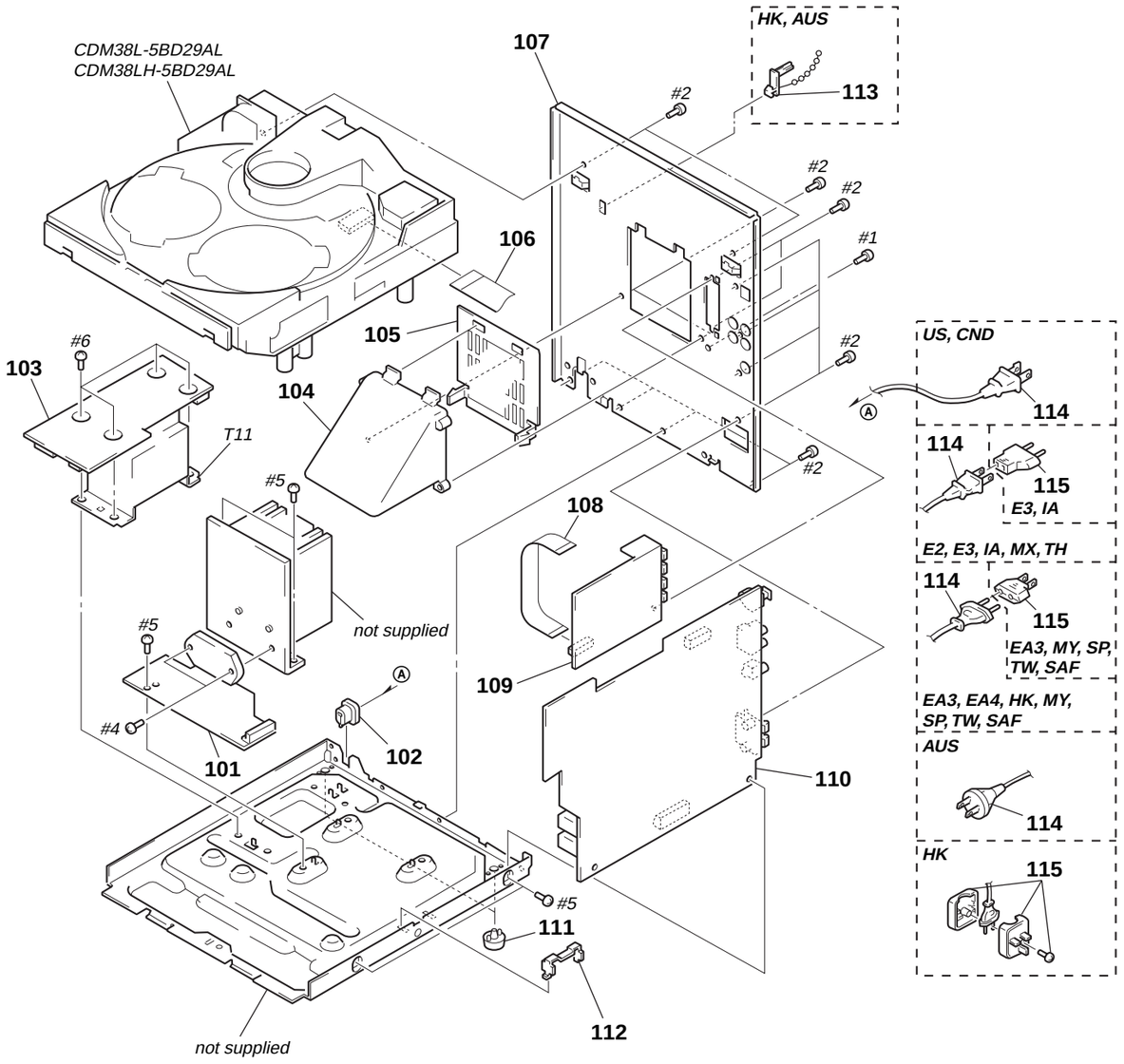
Ref. No.	Part No.	Description	Remark
1	4-996-733-01	SPRING (B DECK)	
2	X-4949-350-1	LID (R) ASSY, CASSETTE	
3	4-996-732-01	SPRING (A DECK)	
4	X-4949-349-1	LID (L) ASSY, CASSETTE	
5	4-996-703-01	PANEL, LOADING (RX66)	
5	4-996-703-11	PANEL, LOADING (GRX5)	
6	1-769-984-11	WIRE (FLAT TYPE) (13 CORE) (23 CM)	
7	3-363-099-11	SCREW (CASE 3 TP2) (3X8)	
8	3-363-099-71	SCREW (CASE 3 TP2) (3X12)	
* 9	4-996-728-01	CASE (EXCEPT GRX5: IA/RX66)	
* 9	4-996-728-21	CASE (GRX5: IA)	
10	1-773-048-11	WIRE (FLAT TYPE) (17 CORE)	
11	1-773-025-11	WIRE (FLAT TYPE) (15 CORE) (33 CM)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4949-340-1	PANEL ASSY, FRONT (GRX5/RX66: CND)	
51	X-4949-621-1	PANEL ASSY, FRONT (RX66: US)	
52	4-930-336-61	FOOT (FELT)	
53	4-962-708-11	EMBLEM (4-A), SONY	
54	4-995-081-01	LATCH, DC	
55	4-996-722-01	KNOB (VOL)	
56	4-996-721-01	KNOB (JOG-U4)	
* 57	4-996-716-01	HOLDER (CDM)	
58	4-951-620-01	SCREW (2.6X8), +BVTP	
59	4-986-893-51	KNOB (MICROPHONE)	
* 60	1-668-206-11	CD-SW BOARD	
* 61	A-4407-079-A	PANEL BOARD, COMPLETE	
* 62	1-668-209-11	HP BOARD	
63	3-973-975-11	DAMPER, OIL	

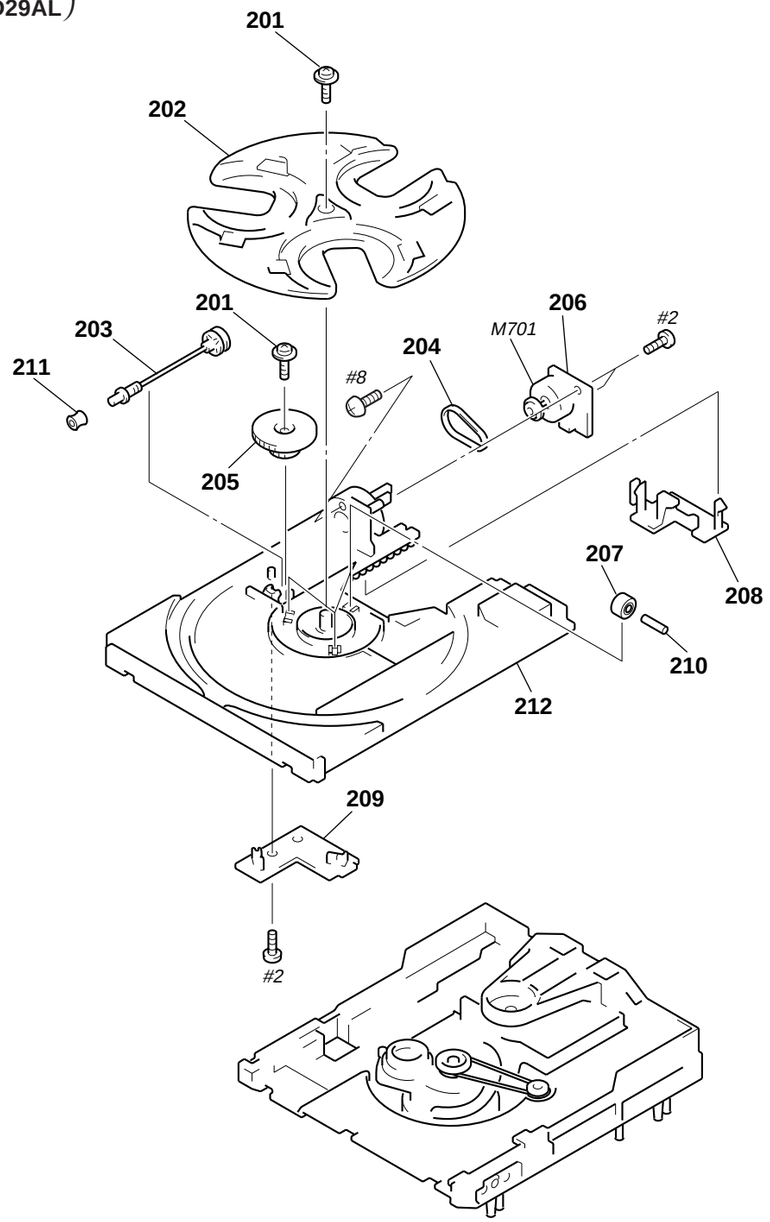
(3) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
* 101	A-4407-080-A	POWER AMP BOARD, COMPLETE (RX66: US)	
* 101	A-4407-085-A	POWER AMP BOARD, COMPLETE (RX66: CND)	
* 101	A-4407-108-A	POWER AMP BOARD, COMPLETE (GRX5: E2, E3, EA3, MY, SP, HK, TW,SAF, MX, AUS)	
* 101	A-4407-127-A	POWER AMP BOARD, COMPLETE (GRX5: EA4, TH)	
* 101	A-4407-142-A	POWER AMP BOARD, COMPLETE (GRX5: IA)	
* 102	3-703-244-00	BUSHING (2104), CORD (GRX5: EA3, EA4, MY, SP, HK, TW, SAF, AUS/RX66)	
102	3-703-571-11	BUSHING (S) (4516), CORD (GRX5: E2, E3, TH, MX)	
102	4-966-266-01	BUSHING (S) (FBS002), CORD (GRX5: IA)	
* 103	1-668-208-11	TRANSFORMER BOARD	
* 104	4-996-736-01	DUCT (A)	
* 105	4-996-701-01	DUCT (B)	
106	1-783-570-11	WIRE (FLAT TYPE) (19 CORE)	
* 107	4-996-725-01	PANEL, BACK (RX66: US)	
* 107	4-996-725-11	PANEL, BACK (RX66: CND)	
* 107	4-996-725-21	PANEL, BACK (GRX5: EA4, TH)	
* 107	4-996-842-01	PANEL, BACK (GRX5: E2, E3)	
* 107	4-996-842-11	PANEL, BACK (GRX5: MY, SP, SAF)	
* 107	4-996-842-21	PANEL, BACK (GRX5: EA3, TW)	
* 107	4-996-842-31	PANEL, BACK (GRX5: HK)	
* 107	4-996-842-41	PANEL, BACK (GRX5: AUS)	
* 107	4-996-842-51	PANEL, BACK (GRX5: MX)	
* 107	4-996-842-71	PANEL, BACK (GRX5: IA)	
108	1-769-976-11	WIRE (FLAT TYPE) (13 CORE) (14 CM) (GRX5: E2, EA4, TH, MX, AUS/RX66)	
108	1-773-008-11	WIRE (FLAT TYPE) (15 CORE) (14 CM) (GRX5: E3, EA3, MY, SP, IA, HK, TW, SAF)	
109	1-233-544-11	ENCAPSULATED COMPONENT (RX66)	
109	1-233-545-11	ENCAPSULATED COMPONENT (GRX5: E2, EA4, TH, MX, AUS)	
109	1-233-546-11	ENCAPSULATED COMPONENT (GRX5: E3, EA3, MY, SP, IA, HK, TW, SAF)	
* 110	A-4407-068-A	MAIN BOARD, COMPLETE (RX66: US)	
* 110	A-4407-083-A	MAIN BOARD, COMPLETE (RX66: CND)	
* 110	A-4407-101-A	MAIN BOARD, COMPLETE (GRX5: E2, MX)	
* 110	A-4407-105-A	MAIN BOARD, COMPLETE (GRX5: E3, EA3, MY, SP, HK, TW, SAF)	
* 110	A-4407-115-A	MAIN BOARD, COMPLETE (GRX5: AUS)	
* 110	A-4407-121-A	MAIN BOARD, COMPLETE (GRX5: EA4, TH)	
* 110	A-4407-136-A	MAIN BOARD, COMPLETE (GRX5: IA)	
111	4-965-822-01	FOOT	
* 112	4-988-533-01	HOLDER, PWB	
113	4-956-370-12	BAND, PLUG FIXED (GRX5: HK, AUS)	
⚠114	1-575-651-11	CORD, POWER (GRX5: EA3, EA4, MY, SP, HK, TW, SAF)	
⚠114	1-575-653-11	CORD, POWER (GRX5: E2, E3, IA, TH, MX)	
⚠114	1-690-608-11	CORD, POWER (GRX5: AUS)	
⚠114	1-690-609-21	CORD, POWER (RX66)	
⚠115	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX5: E3, IA)	
⚠115	1-569-008-11	ADAPTOR, CONVERSION 2P (GRX5: EA3, MY, SP, TW, SAF)	
⚠115	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (GRX5: HK)	
⚠T11	1-431-655-11	TRANSFORMER, POWER (RX66: US)	
⚠T11	1-431-656-11	TRANSFORMER, POWER (RX66: CND)	
⚠T11	1-431-658-11	TRANSFORMER, POWER (GRX5)	

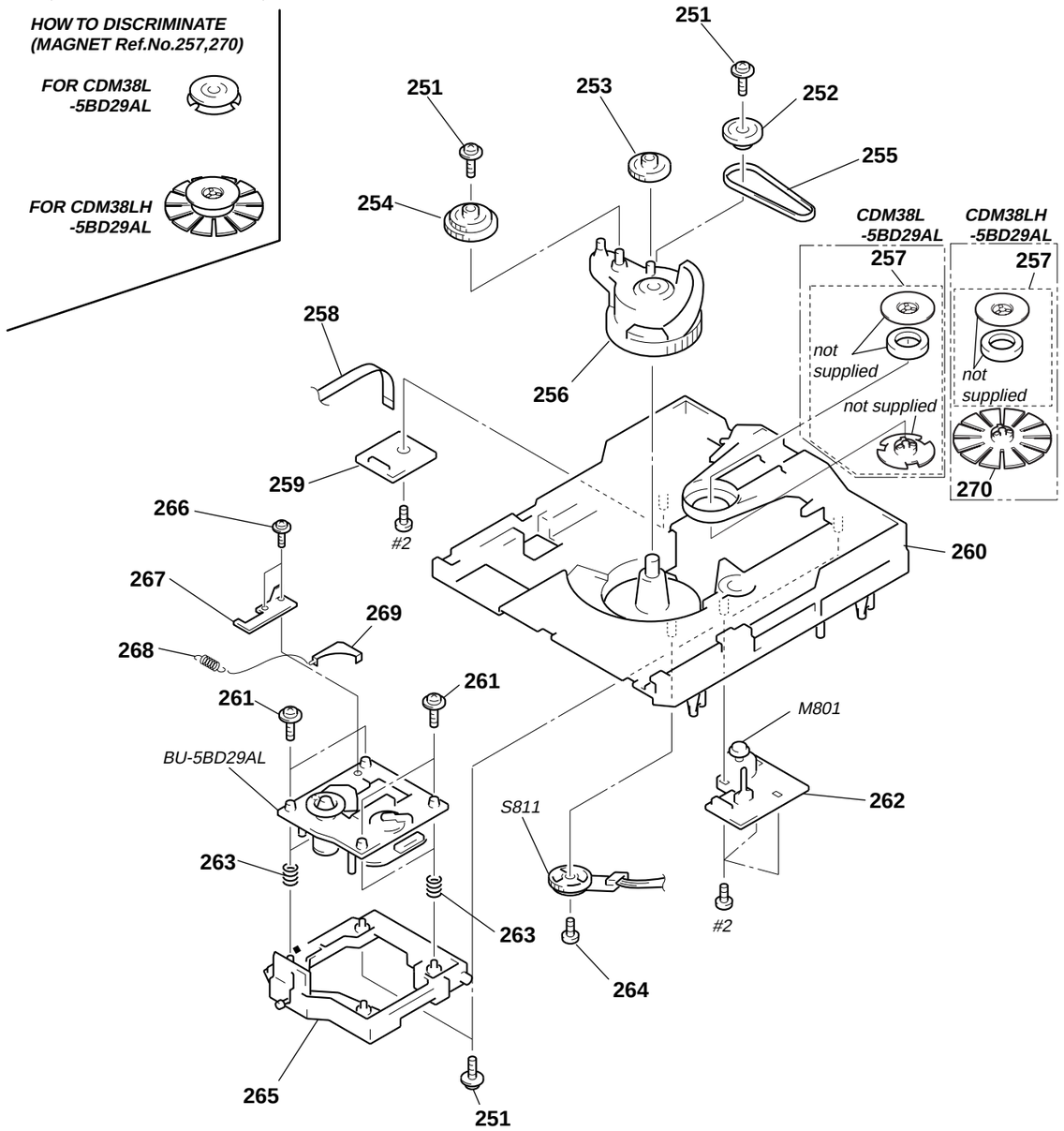
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

(4) CD MECHANISM DECK SECTION-1
(CDM38L-5BD29AL
CDM38LH-5BD29AL)



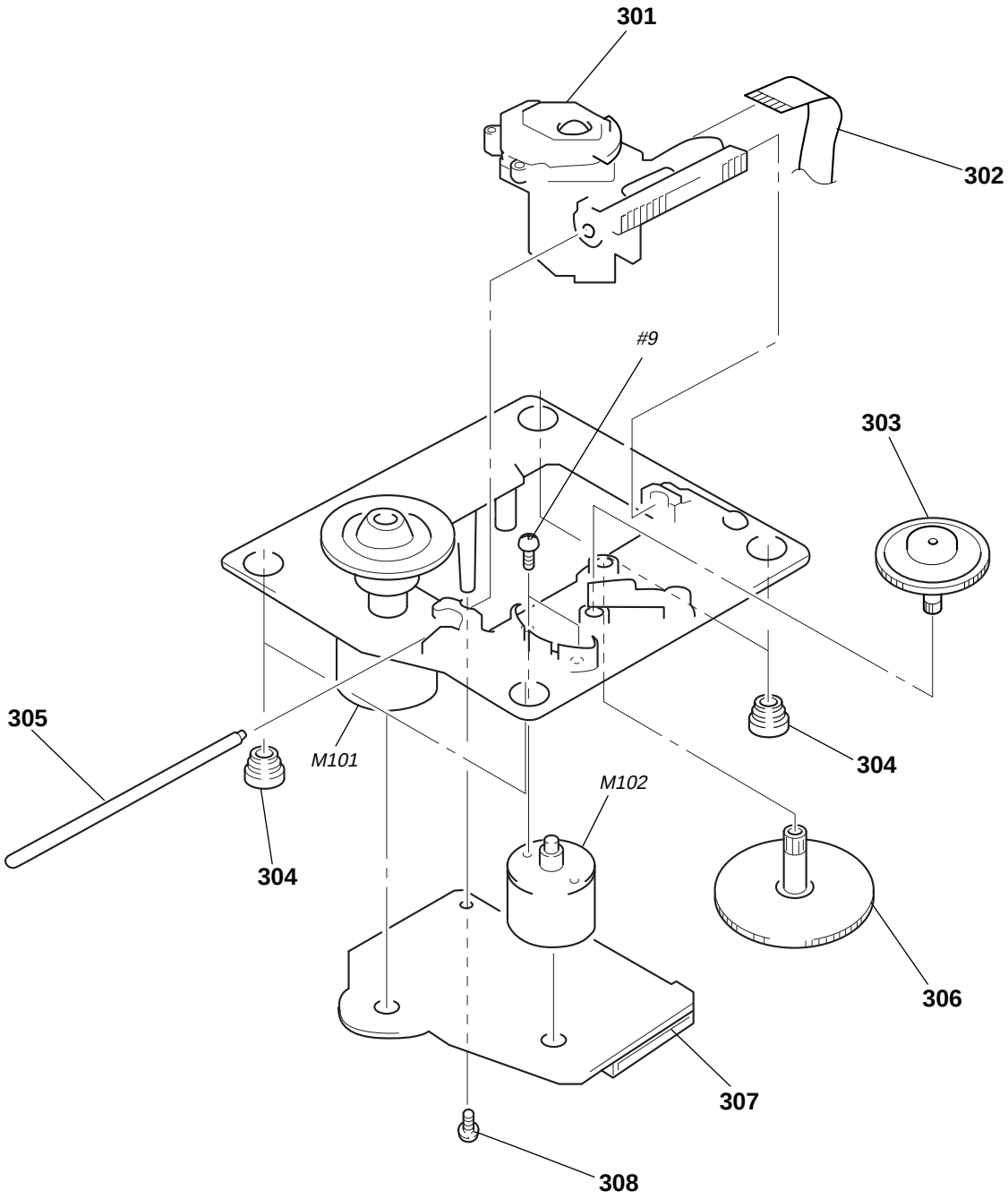
Ref. No.	Part No.	Description	Remark
201	4-981-789-11	BRACKET (2), YOKE	
202	4-977-945-01	TRAY (TURN)	
203	X-4946-665-1	SHAFT ASSY, WORM	
204	4-977-943-01	BELT (TURN) (1.2)	
205	4-977-956-01	WHEEL, WORM	
* 206	1-658-577-11	MOTOR (TURN) BOARD	
207	4-988-162-01	ROLLER	
208	4-977-941-01	BEARING (WORM)	
* 209	1-658-576-11	SENSOR BOARD	
210	4-934-376-01	SHAFT (ROLLER)	
211	4-981-187-01	COLLAR (WORM)	
212	4-977-944-01	TRAY (SLIDE)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

(5) CD MECHANISM DECK SECTION-2
(CDM38L-5BD29AL
CDM38LH-5BD29AL)



Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE	
252	4-977-954-01	PULLEY (SL)	
253	4-977-953-01	GEAR (SL-A)	
254	4-977-955-01	GEAR (SL-B)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-1	CAM ASSY, BU	
* 257	1-452-879-11	MAGNET (CDM38L-5BD29AL)	
257	1-452-925-21	MAGNET ASSY (CDM38LH-5BD29AL)	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 259	1-658-575-11	CONNECTOR BOARD	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY	
261	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
263	4-982-447-01	SPRING (BU), COMPRESSION	
264	4-951-620-41	SCREW (2.6), +BVTP	
* 265	X-4946-666-1	HOLDER (BU) ASSY	
266	4-989-494-01	SCREW (SLIDER), STEP	
267	4-989-492-11	SLIDER (38)	
268	4-989-819-02	SPRING, TENSION	
269	4-989-491-21	COVER, LENS	
270	4-933-142-11	PULLEY (L), PRESS (CDM38LH-5BD29AL)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

(6) BASE UNIT SECTION (BU-5BD29AL)

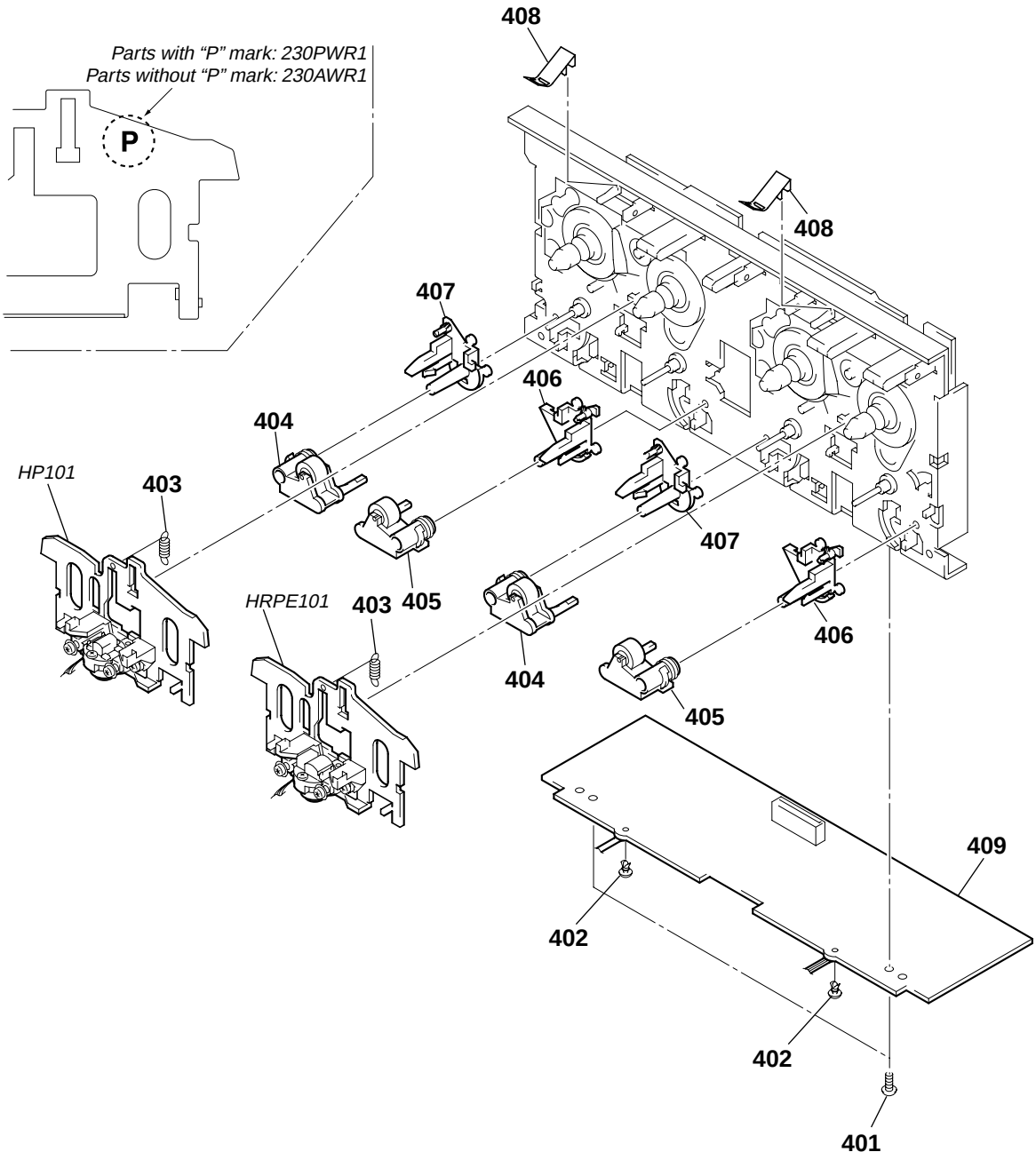


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
⚠301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-917-567-21	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4699-522-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

(7) TAPE MECHANISM DECK SECTION-1
(TCM-230AWR1 / TCM-230PWR1)

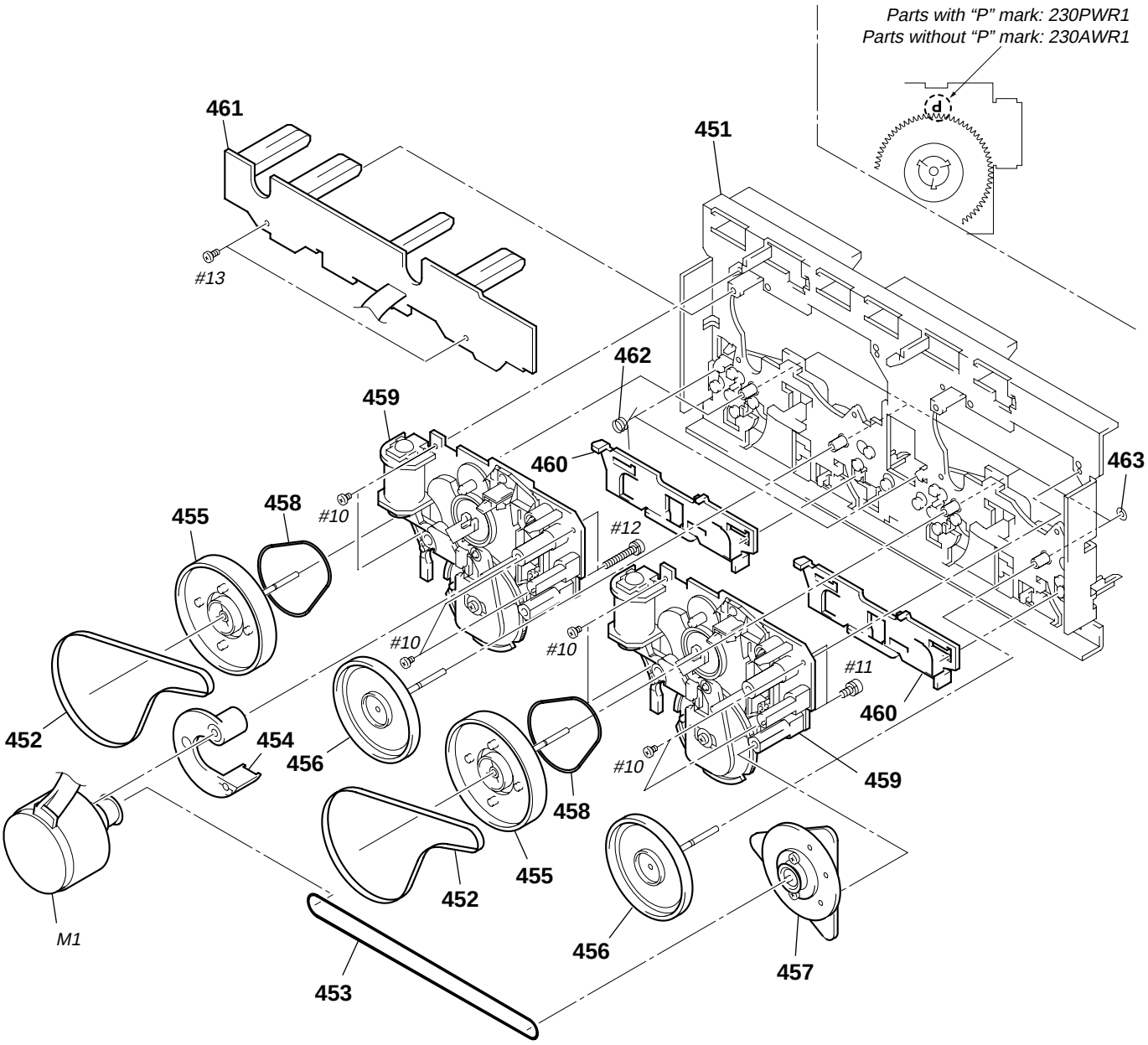
***NOTE:** Two types of parts which are not interchangeable are available for the Head deck (A) ASSY and Head deck (B) ASSY. When replacing the parts, refer to the following figure, and use the appropriate part*



Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
402	3-911-116-21	RIVET, PUSH	
403	3-016-574-01	SPRING (HEAD),TENSION	
404	X-3374-156-2	PINCH LEVER (REV) ASSY	
405	X-3374-155-2	PINCH LEVER (FWD) ASSY	
406	3-016-564-01	BASE (PINCH LEVER FWD)	
407	3-016-565-01	BASE (PINCH LEVER REV)	
408	3-016-567-02	SPRING (CASSETTE), LEAF	
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR1)	(*NOTE)
HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR1)	(*NOTE)
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR1)	(*NOTE)
HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR1)	(*NOTE)

(8) TAPE MECHANISM DECK SECTION-2
(TCM-230AWR1 / TCM-230PWR1)

***NOTE:** Two types of parts which are not interchangeable are available for the mechanical block assembly. When replacing the parts, refer to the following figure, and use the appropriate part.*



Ref. No.	Part No.	Description	Remark
* 451	X-3374-214-1	CHASSIS ASSY, MAIN	
452	3-016-570-01	BELT (CAPSTAN)	
453	3-016-569-01	BELT (TENSION)	
454	3-017-360-01	BRACKET (MOTOR)	
455	X-3374-234-1	FLYWHEEL (FWD) ASSY	
456	X-3374-235-1	FLYWHEEL (REV) ASSY	
457	X-3374-238-1	PULLEY ASSY, TENSION	
458	3-024-405-01	BELT (FR)	
459	A-2004-629-A	MECHANICAL BLOCK ASSY (230AWR1)	(*NOTE)
459	A-2004-630-A	MECHANICAL BLOCK ASSY (230PWR1)	(*NOTE)
460	3-016-566-01	SLIDER, REVERSE	
* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
462	3-016-575-01	SPRING, TORSION	
463	3-019-208-01	WASHER, STOPPER	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

AUDIO

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AUS : Australian
  CND : Canadian
  E2 : 120V AC Area in E model
  E3 : 240V AC Area in E model
  EA3 : Saudi Arabia
  EA4 : Israel
  HK : Hong Kong
  IA : Indonesian
  MX : Mexican
  MY : Malaysia
  SAF : South African
  SP : Singapore
  TH : Thai
  TW : Taiwan
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-731-A	AUDIO BOARD, COMPLETE **********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-104-396-11	ELECT	10uF	20%	16V
C612	1-104-396-11	ELECT	10uF	20%	16V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V

Ref. No.	Part No.	Description			Remark
C642	1-104-664-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
CN601	1-695-338-11	PIN, CONNECTOR (PC BOARD) 15P			
		< IC >			
IC601	8-759-111-44	IC UPC4570C-1			
IC602	8-759-143-54	IC UPC1330HA			
IC611	8-759-111-44	IC UPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
L601	1-414-193-41	INDUCTOR, MICRO	22uH		
L602	1-414-193-41	INDUCTOR, MICRO	22uH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W
R612	1-249-409-11	CARBON	220	5%	1/4W
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
*	A-4699-522-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C107	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C120	1-124-779-00	ELECT CHIP	10uF	20%	16V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V

Ref. No.	Part No.	Description			Remark
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-164-346-11	CERAMIC CHIP	1uF		16V
C140	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C161	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C162	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C163	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C164	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C165	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C166	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C167	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C168	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C169	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C170	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C171	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C173	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C174	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C175	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C176	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C177	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C179	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C181	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C182	1-126-393-11	ELECT CHIP	33uF	20%	10V
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C185	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C188	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C189	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
CNU102	1-778-874-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
		< FERRITE BEAD >			
FB101	1-414-234-11	INDUCTOR CHIP 0UH			
FB103	1-414-234-11	INDUCTOR CHIP 0UH			
		< IC >			
IC101	8-752-080-62	IC CXA1992AR			
IC102	8-759-429-32	IC BA5941FP-E2			
IC103	8-752-378-66	IC CXD2519Q			
		< JUMPER RESISTOR >			
JW101	1-216-295-91	SHORT	0		
JW104	1-216-295-91	SHORT	0		
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R104	1-216-093-00	METAL CHIP	68K	5%	1/10W
R105	1-216-088-00	METAL CHIP	43K	5%	1/10W
R106	1-216-088-00	METAL CHIP	43K	5%	1/10W
R107	1-216-088-00	METAL CHIP	43K	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

BD CD-SW CONNECTOR

Ref. No.	Part No.	Description			Remark
R108	1-216-088-00	METAL CHIP	43K	5%	1/10W
R109	1-216-093-00	METAL CHIP	68K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R118	1-216-063-91	RES, CHIP	3.9K	5%	1/10W
R119	1-216-085-00	METAL CHIP	33K	5%	1/10W
R120	1-216-089-91	RES, CHIP	47K	5%	1/10W
R121	1-216-114-00	RES, CHIP	510K	5%	1/10W
R122	1-216-097-91	RES, CHIP	100K	5%	1/10W
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W
R124	1-216-091-00	METAL CHIP	56K	5%	1/10W
R125	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R126	1-216-063-91	RES, CHIP	3.9K	5%	1/10W
R127	1-216-089-91	RES, CHIP	47K	5%	1/10W
R128	1-216-098-00	METAL CHIP	110K	5%	1/10W
R129	1-216-025-91	RES, CHIP	100	5%	1/10W
R130	1-216-079-00	METAL CHIP	18K	5%	1/10W
R131	1-216-079-00	METAL CHIP	18K	5%	1/10W
R132	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R133	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R135	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W
R137	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R138	1-216-025-91	RES, CHIP	100	5%	1/10W
R156	1-216-081-00	METAL CHIP	22K	5%	1/10W
R157	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R158	1-216-001-00	METAL CHIP	10	5%	1/10W
R159	1-216-121-91	RES, CHIP	1M	5%	1/10W
R161	1-216-097-91	RES, CHIP	100K	5%	1/10W
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W
R163	1-216-121-91	RES, CHIP	1M	5%	1/10W
R164	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R165	1-216-049-91	RES, CHIP	1K	5%	1/10W
R166	1-216-073-00	METAL CHIP	10K	5%	1/10W
R167	1-216-081-00	METAL CHIP	22K	5%	1/10W
R168	1-216-073-00	METAL CHIP	10K	5%	1/10W
R169	1-216-079-00	METAL CHIP	18K	5%	1/10W
R170	1-216-081-00	METAL CHIP	22K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-079-00	METAL CHIP	18K	5%	1/10W
R173	1-216-025-91	RES, CHIP	100	5%	1/10W
R174	1-216-033-00	METAL CHIP	220	5%	1/10W
R175	1-216-025-91	RES, CHIP	100	5%	1/10W
R176	1-216-025-91	RES, CHIP	100	5%	1/10W
R177	1-216-025-91	RES, CHIP	100	5%	1/10W
R178	1-216-025-91	RES, CHIP	100	5%	1/10W
R179	1-216-025-91	RES, CHIP	100	5%	1/10W
R180	1-216-025-91	RES, CHIP	100	5%	1/10W
R181	1-216-025-91	RES, CHIP	100	5%	1/10W
R188	1-216-037-00	METAL CHIP	330	5%	1/10W
R190	1-216-097-91	RES, CHIP	100K	5%	1/10W
R191	1-216-105-91	RES, CHIP	220K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
*	1-668-206-11	CD-SW BOARD			
		**********			
		< DIODE >			
D631	8-719-056-13	LED SML79423C-TP15 (DISC 1)			
D632	8-719-056-13	LED SML79423C-TP15 (DISC 2)			
D633	8-719-056-13	LED SML79423C-TP15 (DISC 3)			
		< TRANSISTOR >			
Q613	8-729-029-68	TRANSISTOR DTC114TSA			
Q614	8-729-029-68	TRANSISTOR DTC114TSA			
Q615	8-729-029-68	TRANSISTOR DTC114TSA			
		< RESISTOR >			
R656	1-249-418-11	CARBON	1.2K	5%	1/4W
R657	1-249-419-11	CARBON	1.5K	5%	1/4W
R658	1-249-421-11	CARBON	2.2K	5%	1/4W
R659	1-247-843-11	CARBON	3.3K	5%	1/4W
R660	1-249-425-11	CARBON	4.7K	5%	1/4W
R691	1-247-804-11	CARBON	75	5%	1/4W
R692	1-247-804-11	CARBON	75	5%	1/4W
R693	1-247-804-11	CARBON	75	5%	1/4W
R694	1-247-804-11	CARBON	75	5%	1/4W
R695	1-247-804-11	CARBON	75	5%	1/4W
R696	1-247-804-11	CARBON	75	5%	1/4W
		< SWITCH >			
S637	1-762-875-21	SWITCH, TACT (I/⏻ (POWER))			
S638	1-762-875-21	SWITCH, TACT (DISC 1)			
S639	1-762-875-21	SWITCH, TACT (DISC 2)			
S640	1-762-875-21	SWITCH, TACT (DISC 3)			
S641	1-762-875-21	SWITCH, TACT (DISC SKIP/EX-CHANGE)			
S642	1-762-875-21	SWITCH, TACT (⏏)			
**********					
*	1-658-575-11	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
* CN701	1-568-946-11	PIN, CONNECTOR 8P			
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P			
		< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR DTC114ES			
		< RESISTOR >			
R703	1-249-435-11	CARBON	33K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W
**********					

Ref. No.	Part No.	Description			Remark
*	1-668-209-11	HP BOARD			
		*********			
		< CAPACITOR >			
C421	1-162-294-31	CERAMIC	0.001uF	10%	50V
C471	1-162-294-31	CERAMIC	0.001uF	10%	50V
C472	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN109	1-564-521-11	PLUG, CONNECTOR 6P			
		< LEAD >			
EL1	1-690-880-41	LEAD (WITH CONNECTOR)			
		< JACK >			
J421	1-784-224-11	JACK (LARGE TYPE) (PHONES)			
**********					
*	A-2007-732-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-128-124-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P			
CN1001	1-784-459-11	CONNECTOR, FFC/FPC 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS119			
D1002	8-719-911-19	DIODE 1SS119			
		< CONNECTOR >			
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P			
		< IC >			
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR DTA144ESA			
Q1001	8-729-900-65	TRANSISTOR DTA144ES			
		< RESISTOR >			
R907	1-247-879-11	CARBON	100K	5%	1/4W
R1001	1-249-409-11	CARBON	220	5%	1/4W
R1002	1-249-409-11	CARBON	220	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-856-00	CARBON	11K	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (A HALF)			
S1004	1-771-205-11	SWITCH, LEAF (A 120/70)			
S1005	1-771-205-11	SWITCH, LEAF (REC A)			
S1006	1-771-333-11	SWITCH, LEAF (B HALF)			
S1008	1-771-205-11	SWITCH, LEAF (B 120/70)			
S1009	1-771-205-11	SWITCH, LEAF (REC B)			
**********					
*	A-4407-068-A	MAIN BOARD, COMPLETE (RX66: US)			
*	A-4407-083-A	MAIN BOARD, COMPLETE (RX66: CND)			
*	A-4407-101-A	MAIN BOARD, COMPLETE (GRX5: E2, MX)			
*	A-4407-105-A	MAIN BOARD, COMPLETE (GRX5: E3, EA3, MY, SP, HK, TW, SAF)			
*	A-4407-115-A	MAIN BOARD, COMPLETE (GRX5: AUS)			
*	A-4407-121-A	MAIN BOARD, COMPLETE (GRX5: EA4, TH)			
*	A-4407-136-A	MAIN BOARD, COMPLETE (GRX5: IA)			
		**********			
		< CAPACITOR >			
C101	1-162-286-31	CERAMIC	220PF	10%	50V
C102	1-162-286-31	CERAMIC	220PF	10%	50V
C103	1-164-159-11	CERAMIC	0.1uF		50V
C111	1-137-195-11	FILM	0.56uF	5%	50V
C112	1-136-158-00	FILM	0.027uF	5%	50V
C115	1-136-159-00	FILM	0.033uF	5%	50V
C116	1-130-473-00	MYLAR	0.0015uF	5%	50V
C119	1-130-479-00	MYLAR	0.0047uF	5%	50V
C120	1-130-477-00	FILM	0.0033uF	5%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-162-291-31	CERAMIC	560PF	10%	50V
C123	1-136-165-00	FILM	0.1uF	5%	50V
C124	1-136-165-00	FILM	0.1uF	5%	50V
C125	1-126-964-11	ELECT	10uF	20%	50V
C131	1-126-967-11	ELECT	47uF	20%	16V
C132	1-126-967-11	ELECT	47uF	20%	16V
C133	1-164-159-11	CERAMIC	0.1uF		50V
C134	1-164-159-11	CERAMIC	0.1uF		50V
C135	1-126-964-11	ELECT	10uF	20%	50V
C136	1-164-159-11	CERAMIC	0.1uF		50V
C141	1-126-959-11	ELECT	0.47uF	20%	50V
C151	1-162-286-31	CERAMIC	220PF	10%	50V
C152	1-162-286-31	CERAMIC	220PF	10%	50V
C161	1-137-195-11	FILM	0.56uF	5%	50V
C162	1-136-158-00	FILM	0.027uF	5%	50V
C165	1-136-159-00	FILM	0.033uF	5%	50V
C166	1-130-473-00	MYLAR	0.0015uF	5%	50V
C169	1-130-479-00	MYLAR	0.0047uF	5%	50V
C170	1-130-477-00	FILM	0.0033uF	5%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-162-291-31	CERAMIC	560PF	10%	50V
C173	1-136-165-00	FILM	0.1uF	5%	50V
C174	1-136-165-00	FILM	0.1uF	5%	50V
C175	1-126-964-11	ELECT	10uF	20%	50V
C176	1-136-495-11	FILM	0.068uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C177	1-136-153-00	FILM	0.01uF	5%	50V
C191	1-126-964-11	ELECT	10uF	20%	50V
C192	1-162-292-31	CERAMIC	680PF	10%	50V
C193	1-126-964-11	ELECT	10uF	20%	50V
C194	1-162-286-31	CERAMIC	220PF	10%	50V
C195	1-162-306-11	CERAMIC	0.01uF	20%	16V
C196	1-162-306-11	CERAMIC	0.01uF	20%	16V
C301	1-126-160-11	ELECT	1uF	20%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-124-250-11	EJECT	0.15uF	20%	50V (RX66)
C305	1-126-964-11	ELECT	10uF	20%	50V (GRX5)
C306	1-126-160-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-136-173-00	FILM	0.47uF	5%	50V
C310	1-162-290-31	CERAMIC	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-162-294-31	CERAMIC	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-126-933-11	ELECT	100uF	20%	10V
C317	1-126-933-11	ELECT	100uF	20%	10V
C320	1-162-290-31	CERAMIC	470PF	10%	50V
C331	1-164-159-11	CERAMIC	0.1uF		50V
C332	1-164-159-11	CERAMIC	0.1uF		50V
C333	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C334	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C351	1-126-160-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-124-250-11	ELECT	0.15uF	20%	50V (RX66)
C355	1-126-964-11	ELECT	10uF	20%	50V (GRX5)
C356	1-126-160-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-136-173-00	FILM	0.47uF	5%	50V
C381	1-162-306-11	CERAMIC	0.01uF	20%	16V
C382	1-126-933-11	ELECT	100uF	20%	16V
C391	1-164-159-11	CERAMIC	0.1uF		50V
C392	1-126-916-11	ELECT	1000uF	20%	6.3V
C393	1-164-159-11	CERAMIC	0.1uF		50V
C394	1-126-925-11	ELECT	470uF	20%	10V
C395	1-162-290-31	CERAMIC	470PF	10%	50V
C396	1-126-961-11	ELECT	2.2uF	20%	50V
C397	1-126-961-11	ELECT	2.2uF	20%	50V
C431	1-126-923-11	ELECT	220uF	20%	10V
C432	1-126-933-11	ELECT	100uF	20%	10V
C433	1-126-160-11	ELECT	1uF	20%	50V
C501	1-126-967-11	ELECT	47uF	20%	10V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-136-173-00	FILM	0.47uF	5%	50V
C504	1-126-926-11	ELECT	1000uF	20%	10V
C505	1-162-306-11	CERAMIC	0.01uF	20%	16V
C506	1-136-165-00	FILM	0.1uF	5%	50V
C507	1-164-159-11	CERAMIC	0.1uF		50V
C508	1-126-933-11	ELECT	100uF	20%	10V
C509	1-102-958-00	CERAMIC	20PF	5%	50V
C510	1-102-514-11	CERAMIC	22PF	5%	50V
C571	1-109-889-11	ELECT	1uF	20%	50V
C901	1-136-165-00	FILM	0.1uF	5%	50V
C902	1-128-548-11	ELECT	4700uF	20%	25V
C903	1-104-666-11	ELECT	220uF	20%	25V
C904	1-126-967-11	ELECT	47uF	20%	16V
C905	1-104-661-91	ELECT	330uF	20%	16V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-126-933-11	ELECT	100uF	20%	10V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-767-11	ELECT	1000uF	20%	16V
C913	1-126-943-11	ELECT	2200uF	20%	25V
C914	1-126-767-11	ELECT	1000uF	20%	16V
C915	1-126-967-11	ELECT	47uF	20%	16V
C916	1-164-159-11	CERAMIC	0.1uF		50V
C917	1-126-933-11	ELECT	100uF	20%	16V
C918	1-126-968-11	ELECT	100uF	20%	50V
C919	1-126-968-11	ELECT	100uF	20%	50V
C920	1-126-964-11	ELECT	10uF	20%	50V
C921	1-126-947-11	ELECT	47uF	20%	35V
C951	1-136-165-00	FILM	0.1uF	5%	50V
C952	1-126-943-11	ELECT	2200uF	20%	25V
C953	1-104-666-11	ELECT	220uF	20%	25V
C955	1-104-661-91	ELECT	330uF	20%	16V

< CONNECTOR >

CN101	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P	
* CN102	1-568-832-11	SOCKET, CONNECTOR 13P	(GRX5: E2, EA4, TH, MX, AUS/RX66)
CN102	1-568-834-11	SOCKET, CONNECTOR 15P	(GRX5: E3, EA3, MY, SP, IA, HK, TW, SAF)
* CN103	1-568-946-11	PIN, CONNECTOR 8P	
* CN104	1-568-947-11	PIN, CONNECTOR 9P	
* CN105	1-568-862-11	SOCKET, CONNECTOR 19P	
CN106	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN107	1-568-836-11	SOCKET, CONNECTOR 17P	
* CN201	1-568-832-11	SOCKET, CONNECTOR 13P	
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	

< DIODE >

D141	8-719-911-19	DIODE 1SS119
D401	8-719-911-19	DIODE 1SS119
D501	8-719-024-99	DIODE 11ES2-NTA2B
D502	8-719-024-99	DIODE 11ES2-NTA2B
D503	8-719-911-19	DIODE 1SS119
D504	8-719-911-19	DIODE 1SS119
D505	8-719-911-19	DIODE 1SS119
D506	8-719-911-19	DIODE 1SS119
D507	8-719-024-99	DIODE 11ES2-NTA2B
D508	8-719-911-19	DIODE 1SS119
D901	8-719-024-99	DIODE 11ES2-NTA2B

Ref. No.	Part No.	Description	Remark
D902	8-719-024-99	DIODE 11ES2-NTA2B	
D903	8-719-024-99	DIODE 11ES2-NTA2B	
D904	8-719-024-99	DIODE 11ES2-NTA2B	
D905	8-719-985-87	DIODE HZS6B1LTA	
D906	8-719-911-19	DIODE 1SS119	
D907	8-719-024-99	DIODE 11ES2-NTA2B	
D908	8-719-024-99	DIODE 11ES2-NTA2B	
D909	8-719-024-99	DIODE 11ES2-NTA2B	
D910	8-719-024-99	DIODE 11ES2-NTA2B	
D911	8-719-934-25	DIODE HZS33-1L	
D912	8-719-921-48	DIODE MTZJ-T-72-5.6C	
D913	8-719-911-19	DIODE 1SS119	
D914	8-719-024-99	DIODE 11ES2-NTA2B	
D915	8-719-986-17	DIODE HZS11B1LTA	
		< GROUND PLATE >	
* EPT1	4-870-539-11	PLATE, GROUND	
		< IC >	
IC101	8-759-495-86	IC M62442FP-A-TP	
IC102	8-759-634-51	IC M5218AP	
IC191	8-759-634-50	IC M5218AL	
IC301	8-759-495-26	IC HA12215	
IC381	8-749-923-04	IC TOTX178 (CD DIGITAL OUT, OPTICAL)	
IC501	8-759-496-10	IC uPD780018AYGF-011-3BA	
IC502	8-759-635-63	IC M51943BSL	
IC901	8-759-604-86	IC M5F7807L	
IC902	8-759-231-53	IC TA7805S	
IC903	8-759-231-58	IC TA7812S	
		< JACK >	
J101	1-695-188-31	JACK, PIN 4P (MD/VIDEO (AUDIO), IN/OUT)	
J191	1-774-785-11	JACK, PIN 1P (SUPER WOOFER)	
		< COIL >	
L301	1-410-524-11	MICRO INDUCTOR 220uH	
L302	1-410-524-11	MICRO INDUCTOR 220uH	
L381	1-410-521-11	INDUCTOR 100uH	
L392	1-410-521-11	INDUCTOR 100uH	
L501	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q111	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q112	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q113	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q161	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q162	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q163	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q191	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q331	8-729-118-00	TRANSISTOR 2SB1116-L	
Q332	8-729-029-66	TRANSISTOR DTC114ESA	
Q333	8-729-118-00	TRANSISTOR 2SB1116-L	
Q334	8-729-029-66	TRANSISTOR DTC114ESA	
Q335	8-729-029-66	TRANSISTOR DTC114ESA	
Q336	8-729-116-57	TRANSISTOR 2SB1068-K	
Q337	8-729-144-44	TRANSISTOR 2SD1513-K	
Q338	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q339	8-729-029-66	TRANSISTOR DTC114ESA	
Q340	8-729-116-57	TRANSISTOR 2SB1068-K	
Q341	8-729-144-44	TRANSISTOR 2SD1513-K	
Q342	8-729-029-21	TRANSISTOR DTA114ESA-TP	
Q343	8-729-029-66	TRANSISTOR DTC114ESA	
Q431	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q432	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q433	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q434	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q435	8-729-029-86	TRANSISTOR DTC124ESA	
Q436	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q437	8-729-029-86	TRANSISTOR DTC124ESA	
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q571	8-729-029-40	TRANSISTOR DTA124ESA	
Q572	8-729-029-40	TRANSISTOR DTA124ESA	
Q575	8-729-029-86	TRANSISTOR DTC124ESA	
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q903	8-729-029-68	TRANSISTOR DTC114TSA	
Q905	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q906	8-729-029-40	TRANSISTOR DTA124ESA	
Q907	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q908	8-729-029-86	TRANSISTOR DTC124ESA	
Q909	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q910	8-729-030-19	TRANSISTOR 2SB1640	
Q913	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q951	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q952	8-729-119-76	TRANSISTOR 2SA1175-HFE	

< RESISTOR >

R101	1-249-417-11	CARBON	1K	5%	1/4W
R102	1-249-417-11	CARBON	1K	5%	1/4W
R111	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-247-903-00	CARBON	1M	5%	1/4W
R113	1-247-903-00	CARBON	1M	5%	1/4W
R114	1-249-419-11	CARBON	1.5K	5%	1/4W
R115	1-249-433-11	CARBON	22K	5%	1/4W
R116	1-247-887-00	CARBON	220K	5%	1/4W
R117	1-249-429-11	CARBON	10K	5%	1/4W
R118	1-249-437-11	CARBON	47K	5%	1/4W
R119	1-249-421-11	CARBON	2.2K	5%	1/4W
R120	1-249-441-11	CARBON	100K	5%	1/4W
R121	1-249-429-11	CARBON	10K	5%	1/4W
R123	1-249-437-11	CARBON	47K	5%	1/4W
R124	1-249-421-11	CARBON	2.2K	5%	1/4W
R125	1-247-843-11	CARBON	3.3K	5%	1/4W
R126	1-249-437-11	CARBON	47K	5%	1/4W
R127	1-249-437-11	CARBON	47K	5%	1/4W
R128	1-249-421-11	CARBON	2.2K	5%	1/4W
R131	1-247-807-31	CARBON	100	5%	1/4W
R132	1-247-807-31	CARBON	100	5%	1/4W
R133	1-247-807-31	CARBON	100	5%	1/4W
R141	1-249-433-11	CARBON	22K	5%	1/4W
R142	1-249-433-11	CARBON	22K	5%	1/4W
R143	1-249-417-11	CARBON	1K	5%	1/4W
R144	1-249-441-11	CARBON	100K	5%	1/4W
R145	1-247-903-00	CARBON	1M	5%	1/4W
R151	1-249-417-11	CARBON	1K	5%	1/4W

MAIN

Ref. No.	Part No.	Description			Remark
R152	1-249-417-11	CARBON	1K	5%	1/4W
R161	1-249-429-11	CARBON	10K	5%	1/4W
R162	1-247-903-00	CARBON	1M	5%	1/4W
R163	1-247-903-00	CARBON	1M	5%	1/4W
R164	1-249-419-11	CARBON	1.5K	5%	1/4W
R165	1-249-433-11	CARBON	22K	5%	1/4W
R166	1-247-887-00	CARBON	220K	5%	1/4W
R167	1-249-429-11	CARBON	10K	5%	1/4W
R168	1-249-437-11	CARBON	47K	5%	1/4W
R169	1-249-421-11	CARBON	2.2K	5%	1/4W
R170	1-249-441-11	CARBON	100K	5%	1/4W
R171	1-249-429-11	CARBON	10K	5%	1/4W
R173	1-249-437-11	CARBON	47K	5%	1/4W
R178	1-249-421-11	CARBON	2.2K	5%	1/4W
R191	1-249-437-11	CARBON	47K	5%	1/4W
R192	1-249-437-11	CARBON	47K	5%	1/4W
R193	1-249-437-11	CARBON	47K	5%	1/4W
R194	1-247-843-11	CARBON	3.3K	5%	1/4W
R195	1-249-429-11	CARBON	10K	5%	1/4W
R196	1-249-417-11	CARBON	1K	5%	1/4W
R197	1-249-441-11	CARBON	100K	5%	1/4W
R198	1-249-417-11	CARBON	1K	5%	1/4W
R199	1-249-429-11	CARBON	10K	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W
R302	1-249-421-11	CARBON	2.2K	5%	1/4W
R303	1-247-807-31	CARBON	100	5%	1/4W
R304	1-247-807-31	CARBON	100	5%	1/4W
R305	1-249-421-11	CARBON	2.2K	5%	1/4W
R306	1-249-428-11	CARBON	8.2K	5%	1/4W
R307	1-249-428-11	CARBON	8.2K	5%	1/4W
R308	1-249-425-11	CARBON	4.7K	5%	1/4W
R309	1-249-433-11	CARBON	22K	5%	1/4W
R311	1-247-903-00	CARBON	1M	5%	1/4W
R312	1-247-884-11	CARBON	160K	5%	1/4W
R313	1-249-441-11	CARBON	100K	5%	1/4W
R315	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-432-11	CARBON	18K	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-247-893-11	CARBON	390K	5%	1/4W
R321	1-249-422-11	CARBON	2.7K	5%	1/4W
R322	1-249-428-11	CARBON	8.2K	5%	1/4W
R324	1-247-876-11	CARBON	75K	5%	1/4W
R325	1-249-437-11	CARBON	47K	5%	1/4W
R326	1-249-437-11	CARBON	47K	5%	1/4W
R327	1-249-437-11	CARBON	47K	5%	1/4W
R328	1-247-876-11	CARBON	75K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W
R330	1-249-425-11	CARBON	4.7K	5%	1/4W
R331	1-249-425-11	CARBON	4.7K	5%	1/4W
R332	1-249-415-11	CARBON	680	5%	1/4W
R333	1-249-421-11	CARBON	2.2K	5%	1/4W
R334	1-249-415-11	CARBON	680	5%	1/4W
R335	1-249-421-11	CARBON	2.2K	5%	1/4W
R336	1-249-437-11	CARBON	47K	5%	1/4W
R337	1-249-417-11	CARBON	1K	5%	1/4W
R338	1-249-411-11	CARBON	330	5%	1/4W

Ref. No.	Part No.	Description			Remark
R339	1-249-437-11	CARBON	47K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-249-411-11	CARBON	330	5%	1/4W
R342	1-249-437-11	CARBON	47K	5%	1/4W
R343	1-249-417-11	CARBON	1K	5%	1/4W
R351	1-249-435-11	CARBON	33K	5%	1/4W
R352	1-249-421-11	CARBON	2.2K	5%	1/4W
R353	1-247-807-31	CARBON	100	5%	1/4W
R354	1-247-807-31	CARBON	100	5%	1/4W
R355	1-249-421-11	CARBON	2.2K	5%	1/4W
R356	1-249-428-11	CARBON	8.2K	5%	1/4W
R357	1-249-428-11	CARBON	8.2K	5%	1/4W
R358	1-249-425-11	CARBON	4.7K	5%	1/4W
R359	1-249-435-11	CARBON	33K	5%	1/4W
R391	1-247-807-31	CARBON	100	5%	1/4W
R392	1-247-807-31	CARBON	100	5%	1/4W
R393	1-249-435-11	CARBON	33K	5%	1/4W
R394	1-249-435-11	CARBON	33K	5%	1/4W
⚠R411	1-215-891-11	METAL OXIDE	680	5%	2W F (RX66: CND)
⚠R411	1-215-892-11	METAL OXIDE	1K	5%	2W F (RX66: US)
⚠R411	1-216-456-00	METAL OXIDE	820	5%	2W F (GRX5)
R421	1-260-091-11	CARBON	220	5%	1/2W
R422	1-260-091-11	CARBON	220	5%	1/2W
R431	1-249-438-11	CARBON	56K	5%	1/4W
R432	1-249-437-11	CARBON	47K	5%	1/4W
R435	1-249-425-11	CARBON	4.7K	5%	1/4W
R437	1-249-429-11	CARBON	10K	5%	1/4W
R438	1-249-429-11	CARBON	10K	5%	1/4W
R439	1-249-425-11	CARBON	4.7K	5%	1/4W
R440	1-247-863-91	CARBON	22K	5%	1/4W
R441	1-249-429-11	CARBON	10K	5%	1/4W
R443	1-249-417-11	CARBON	1K	5%	1/4W
R471	1-260-091-11	CARBON	220	5%	1/2W
R472	1-260-091-11	CARBON	220	5%	1/2W
R501	1-249-413-11	CARBON	470	5%	1/4W
R502	1-249-425-11	CARBON	4.7K	5%	1/4W
R503	1-249-437-11	CARBON	47K	5%	1/4W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-247-897-11	CARBON	560K	5%	1/4W
R508	1-249-425-11	CARBON	4.7K	5%	1/4W
R511	1-249-425-11	CARBON	4.7K	5%	1/4W (GRX5: AUS)
R511	1-249-427-11	CARBON	6.8K	5%	1/4W (GRX5: E2, MX)
R511	1-249-431-11	CARBON	15K	5%	1/4W (GRX5: EA4, TH)
R512	1-249-415-11	CARBON	680	5%	1/4W (GRX5: EA4, TH)
R512	1-249-425-11	CARBON	4.7K	5%	1/4W (GRX5: E2, MX)
R512	1-249-427-11	CARBON	6.8K	5%	1/4W (GRX5: AUS)
R521	1-247-807-31	CARBON	100	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W
R526	1-249-429-11	CARBON	10K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description			Remark
R527	1-247-807-31	CARBON	100	5%	1/4W
R528	1-247-807-31	CARBON	100	5%	1/4W
R529	1-247-807-31	CARBON	100	5%	1/4W
R530	1-247-807-31	CARBON	100	5%	1/4W
R531	1-247-807-31	CARBON	100	5%	1/4W
R532	1-247-807-31	CARBON	100	5%	1/4W
R533	1-247-807-31	CARBON	100	5%	1/4W
R534	1-247-807-31	CARBON	100	5%	1/4W
R535	1-247-807-31	CARBON	100	5%	1/4W
R536	1-247-807-31	CARBON	100	5%	1/4W
R537	1-247-807-31	CARBON	100	5%	1/4W
R538	1-247-807-31	CARBON	100	5%	1/4W
R539	1-247-807-31	CARBON	100	5%	1/4W
R540	1-247-807-31	CARBON	100	5%	1/4W
R541	1-247-807-31	CARBON	100	5%	1/4W
R542	1-247-807-31	CARBON	100	5%	1/4W
R543	1-247-807-31	CARBON	100	5%	1/4W
R544	1-249-429-11	CARBON	10K	5%	1/4W
R545	1-247-807-31	CARBON	100	5%	1/4W
R546	1-247-843-11	CARBON	3.3K	5%	1/4W
R547	1-247-807-31	CARBON	100	5%	1/4W
R548	1-247-807-31	CARBON	100	5%	1/4W
R549	1-247-807-31	CARBON	100	5%	1/4W
R550	1-247-807-31	CARBON	100	5%	1/4W
R551	1-247-807-31	CARBON	100	5%	1/4W
R552	1-247-807-31	CARBON	100	5%	1/4W
R553	1-249-429-11	CARBON	10K	5%	1/4W
R554	1-247-807-31	CARBON	100	5%	1/4W
R555	1-249-429-11	CARBON	10K	5%	1/4W
R556	1-247-807-31	CARBON	100	5%	1/4W
R557	1-249-429-11	CARBON	10K	5%	1/4W
R558	1-247-807-31	CARBON	100	5%	1/4W
R559	1-249-429-11	CARBON	10K	5%	1/4W
R561	1-247-807-31	CARBON	100	5%	1/4W
R562	1-247-807-31	CARBON	100	5%	1/4W
R563	1-247-807-31	CARBON	100	5%	1/4W
R564	1-247-807-31	CARBON	100	5%	1/4W
R565	1-247-807-31	CARBON	100	5%	1/4W
R566	1-247-807-31	CARBON	100	5%	1/4W
R567	1-247-807-31	CARBON	100	5%	1/4W
R571	1-249-421-11	CARBON	2.2K	5%	1/4W
R572	1-249-441-11	CARBON	100K	5%	1/4W
R576	1-249-429-11	CARBON	10K	5%	1/4W
R577	1-249-417-11	CARBON	1K	5%	1/4W
R901	1-247-843-11	CARBON	3.3K	5%	1/4W
R902	1-249-415-11	CARBON	680	5%	1/4W
R903	1-249-419-11	CARBON	1.5K	5%	1/4W
R904	1-249-414-11	CARBON	560	5%	1/4W
R905	1-249-425-11	CARBON	4.7K	5%	1/4W
R906	1-247-843-11	CARBON	3.3K	5%	1/4W
R907	1-249-415-11	CARBON	680	5%	1/4W
R908	1-249-429-11	CARBON	10K	5%	1/4W
R909	1-249-430-11	CARBON	12K	5%	1/4W
R911	1-249-409-11	CARBON	220	5%	1/4W
R912	1-249-417-11	CARBON	1K	5%	1/4W
R913	1-249-425-11	CARBON	4.7K	5%	1/4W
R914	1-249-409-11	CARBON	220	5%	1/4W
R915	1-249-409-11	CARBON	220	5%	1/4W

Ref. No.	Part No.	Description			Remark
R920	1-249-383-11	CARBON	1.5	5%	1/6W
R921	1-249-383-11	CARBON	1.5	5%	1/6W
		< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K			
RV351	1-238-600-11	RES, ADJ, CARBON 10K			
		< RELAY >			
RY401	1-515-920-11	RELAY (24V)			
		< TERMINAL >			
TM401	1-537-240-31	TERMINAL BOARD (CHECKER PIN)			(SPEAKER)
		< VIBRATOR >			
X501	1-760-489-11	VIBRATOR, CERAMIC (5MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
*	1-658-578-11	MOTOR (SLIDE) BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-010-43	DIODE UZ-5.6BSC			
D804	8-719-911-19	DIODE 1SS119			
D805	8-719-911-19	DIODE 1SS119			
		< IC >			
IC801	8-759-274-09	IC BA6286N			
		< RESISTOR >			
R801	1-249-401-11	CARBON	47	5%	1/4W
		< SWITCH >			
S801	1-762-527-11	SWITCH, ROTARY			
**********					
*	1-658-577-11	MOTOR (TURN) BOARD			
		**********			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			

MOTOR (TURN) | PANEL

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D701	8-719-109-69	DIODE RD3.6ES-B2			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W
**********					
*	A-4407-079-A	PANEL BOARD, COMPLETE **********			
*	4-932-810-21	CUSHION (FL)			
*	4-996-724-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C601	1-164-159-11	CERAMIC	0.1uF		50V
C602	1-162-306-11	CERAMIC	0.01uF	20%	16V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-126-163-11	ELECT	4.7uF	20%	50V
C605	1-162-294-31	CERAMIC	0.001uF	10%	50V
C606	1-126-160-11	ELECT	1uF	20%	50V
C607	1-126-160-11	ELECT	1uF	20%	50V
C608	1-162-294-31	CERAMIC	0.001uF	10%	50V
C609	1-162-282-31	CERAMIC	100PF	10%	50V
C610	1-162-282-31	CERAMIC	100PF	10%	50V
C611	1-162-282-31	CERAMIC	100PF	10%	50V
C612	1-162-282-31	CERAMIC	100PF	10%	50V
C613	1-162-282-31	CERAMIC	100PF	10%	50V
C614	1-162-282-31	CERAMIC	100PF	10%	50V
C615	1-162-282-31	CERAMIC	100PF	10%	50V
C616	1-162-282-31	CERAMIC	100PF	10%	50V
C617	1-162-282-31	CERAMIC	100PF	10%	50V
C618	1-162-282-31	CERAMIC	100PF	10%	50V
C619	1-162-282-31	CERAMIC	100PF	10%	50V
C620	1-162-282-31	CERAMIC	100PF	10%	50V
C621	1-162-282-31	CERAMIC	100PF	10%	50V
C625	1-162-294-31	CERAMIC	0.001uF	10%	50V
C626	1-124-589-11	ELECT	47uF	20%	16V
C627	1-162-306-11	CERAMIC	0.01uF	20%	16V
C628	1-162-306-11	CERAMIC	0.01uF	20%	16V
C629	1-162-306-11	CERAMIC	0.01uF	20%	16V
C630	1-162-306-11	CERAMIC	0.01uF	20%	16V
C631	1-126-157-11	ELECT	10uF	20%	16V
C632	1-126-157-11	ELECT	10uF	20%	16V
C633	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C634	1-126-157-11	ELECT	10uF	20%	16V
C635	1-126-163-11	ELECT	4.7uF	20%	50V
C648	1-162-306-11	CERAMIC	0.01uF	20%	16V
C649	1-124-589-11	ELECT	47uF	20%	16V
C749	1-164-159-11	CERAMIC	0.1uF		50V
C752	1-164-159-11	CERAMIC	0.1uF		50V
C753	1-162-290-31	CERAMIC	470PF	10%	50V
C754	1-162-306-11	CERAMIC	0.01uF	20%	16V
C755	1-126-961-11	ELECT	2.2uF	20%	50V

Ref. No.	Part No.	Description			Remark
C756	1-162-294-31	CERAMIC	0.001uF	10%	50V
C757	1-162-215-31	CERAMIC	47PF	5%	50V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-956-91	ELECT	0.1uF	20%	50V
C760	1-162-215-31	CERAMIC	47PF	5%	50V
C761	1-162-282-31	CERAMIC	100PF	10%	50V
C762	1-126-961-11	ELECT	2.2uF	20%	50V
C764	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN601	1-568-856-11	SOCKET, CONNECTOR 13P			
		< DIODE >			
D602	8-719-986-73	DIODE RB441Q			
D610	8-719-063-93	LED SLR325VC-N-T32 (ENTER/NEXT)			
D612	8-719-057-97	LED SEL5923A-TP15 (GROOVE)			
D613	8-719-063-93	LED SLR325VC-N-T32 (JOG)			
D614	8-719-064-65	LED SELU5723C-TP15 (CYBER REMIX)			
D615	8-719-064-65	LED SELU5723C-TP15 (CYBER REMIX)			
D616	8-719-063-93	LED SLR325VC-N-T32 (NON-STOP)			
D617	8-719-057-97	LED SEL5923A-TP15 (+, ▶▶)			
D618	8-719-057-97	LED SEL5923A-TP15 (–, ◀◀)			
D621	8-719-056-13	LED SML79423C-TP15 (CD, ▶ ❚❚)			
D622	8-719-058-03	LED SEL5423E-TP15 (TAPE B, ▶)			
D623	8-719-058-03	LED SEL5423E-TP15 (TAPE B, ◀)			
D624	8-719-058-03	LED SEL5423E-TP15 (TAPE A, ▶)			
D625	8-719-058-03	LED SEL5423E-TP15 (TAPE A, ◀)			
D651	8-719-063-93	LED SLR325VC-N-T32 (● REC)			
D652	8-719-057-97	LED SEL5923A-TP15 (❚❚ PAUSE)			
		< LEAD >			
EL2	1-690-880-51	LEAD (WITH CONNECTOR)			
		< FERRITE BEAD >			
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1uH			
		< FLUORESCENT INDICATOR TUBE >			
FL601	1-517-731-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC601	8-759-496-12	IC TMP87CM74AF-6671			
IC602	8-749-011-05	IC GP1U28X			
IC603	8-759-495-25	IC BA3833FP			
IC750	8-759-634-51	IC M5218AP			
		< JACK >			
J751	1-784-224-11	JACK (LARGE TYPE) (MIX MIC)			
		< COIL >			
L601	1-410-509-11	INDUCTOR 10uH			
		< TRANSISTOR >			
Q601	8-729-118-00	TRANSISTOR 2SB1116-L			
Q602	8-729-118-00	TRANSISTOR 2SB1116-L			
Q603	8-729-620-05	TRANSISTOR 2SC2603-EF			

Ref. No.	Part No.	Description			Remark
Q604	8-729-029-68	TRANSISTOR	DTC114TSA		
Q608	8-729-029-68	TRANSISTOR	DTC114TSA		
Q609	8-729-029-68	TRANSISTOR	DTC114TSA		
Q610	8-729-029-68	TRANSISTOR	DTC114TSA		
Q618	8-729-029-68	TRANSISTOR	DTC114TSA		
Q620	8-729-029-68	TRANSISTOR	DTC114TSA		
Q621	8-729-029-68	TRANSISTOR	DTC114TSA		
		< RESISTOR >			
R601	1-247-903-00	CARBON	1M	5%	1/4W
R602	1-247-807-31	CARBON	100	5%	1/4W
R604	1-249-429-11	CARBON	10K	5%	1/4W
R605	1-249-429-11	CARBON	10K	5%	1/4W
R606	1-249-429-11	CARBON	10K	5%	1/4W
R607	1-249-429-11	CARBON	10K	5%	1/4W
R608	1-247-843-11	CARBON	3.3K	5%	1/4W
R609	1-247-843-11	CARBON	3.3K	5%	1/4W
R610	1-247-807-31	CARBON	100	5%	1/4W
R611	1-247-807-31	CARBON	100	5%	1/4W
R612	1-249-401-11	CARBON	47	5%	1/4W
R615	1-249-437-11	CARBON	47K	5%	1/4W
R616	1-249-441-11	CARBON	100K	5%	1/4W
R618	1-249-437-11	CARBON	47K	5%	1/4W
R619	1-249-435-11	CARBON	33K	5%	1/4W
R620	1-247-895-00	CARBON	470K	5%	1/4W
R621	1-249-427-11	CARBON	6.8K	5%	1/4W
R622	1-249-409-11	CARBON	220	5%	1/4W
R623	1-249-410-11	CARBON	270	5%	1/4W
R624	1-249-412-11	CARBON	390	5%	1/4W
R625	1-249-413-11	CARBON	470	5%	1/4W
R626	1-249-415-11	CARBON	680	5%	1/4W
R627	1-249-416-11	CARBON	820	5%	1/4W
R628	1-249-418-11	CARBON	1.2K	5%	1/4W
R629	1-249-419-11	CARBON	1.5K	5%	1/4W
R630	1-249-421-11	CARBON	2.2K	5%	1/4W
R631	1-247-843-11	CARBON	3.3K	5%	1/4W
R632	1-249-425-11	CARBON	4.7K	5%	1/4W
R633	1-249-427-11	CARBON	6.8K	5%	1/4W
R634	1-249-429-11	CARBON	10K	5%	1/4W
R636	1-249-427-11	CARBON	6.8K	5%	1/4W
R637	1-249-409-11	CARBON	220	5%	1/4W
R638	1-249-410-11	CARBON	270	5%	1/4W
R639	1-249-412-11	CARBON	390	5%	1/4W
R640	1-249-413-11	CARBON	470	5%	1/4W
R641	1-249-415-11	CARBON	680	5%	1/4W
R642	1-249-416-11	CARBON	820	5%	1/4W
R643	1-249-418-11	CARBON	1.2K	5%	1/4W
R649	1-249-427-11	CARBON	6.8K	5%	1/4W
R650	1-249-409-11	CARBON	220	5%	1/4W
R651	1-249-410-11	CARBON	270	5%	1/4W
R652	1-249-412-11	CARBON	390	5%	1/4W
R653	1-249-413-11	CARBON	470	5%	1/4W
R654	1-249-415-11	CARBON	680	5%	1/4W
R655	1-249-416-11	CARBON	820	5%	1/4W
R661	1-249-429-11	CARBON	10K	5%	1/4W
R662	1-249-421-11	CARBON	2.2K	5%	1/4W
R663	1-249-421-11	CARBON	2.2K	5%	1/4W
R664	1-249-409-11	CARBON	220	5%	1/4W
R665	1-249-429-11	CARBON	10K	5%	1/4W
R666	1-249-407-11	CARBON	150	5%	1/4W
R667	1-247-807-31	CARBON	100	5%	1/4W
R668	1-249-407-11	CARBON	150	5%	1/4W
R669	1-247-804-11	CARBON	75	5%	1/4W
R670	1-249-407-11	CARBON	150	5%	1/4W
R671	1-249-407-11	CARBON	150	5%	1/4W
R672	1-249-407-11	CARBON	150	5%	1/4W
R674	1-247-804-11	CARBON	75	5%	1/4W
R675	1-247-804-11	CARBON	75	5%	1/4W
R676	1-247-804-11	CARBON	75	5%	1/4W
R677	1-247-804-11	CARBON	75	5%	1/4W
R678	1-247-804-11	CARBON	75	5%	1/4W
R679	1-247-804-11	CARBON	75	5%	1/4W
R683	1-249-441-11	CARBON	100K	5%	1/4W
R684	1-249-441-11	CARBON	100K	5%	1/4W
R685	1-247-804-11	CARBON	75	5%	1/4W
R725	1-249-427-11	CARBON	6.8K	5%	1/4W
R726	1-249-409-11	CARBON	220	5%	1/4W
R727	1-249-410-11	CARBON	270	5%	1/4W
R728	1-249-412-11	CARBON	390	5%	1/4W
R729	1-249-413-11	CARBON	470	5%	1/4W
R730	1-249-415-11	CARBON	680	5%	1/4W
R731	1-249-416-11	CARBON	820	5%	1/4W
R732	1-249-418-11	CARBON	1.2K	5%	1/4W
R733	1-249-419-11	CARBON	1.5K	5%	1/4W
R742	1-249-407-11	CARBON	150	5%	1/4W
R743	1-247-807-31	CARBON	100	5%	1/4W
R750	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-441-11	CARBON	100K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-433-11	CARBON	22K	5%	1/4W
R755	1-249-429-11	CARBON	10K	5%	1/4W
R756	1-247-885-00	CARBON	180K	5%	1/4W
R757	1-247-807-31	CARBON	100	5%	1/4W
		< VARIABLE RESISTOR >			
RV750	1-225-574-11	RES, VAR (MIC LEVEL)			
		< SWITCH >			
S601	1-473-534-11	ENCODER, ROTARY (⏮ ⟷ ⏭, CYBER REMIX (JOG))			
S602	1-473-392-11	ENCODER, ROTARY (VOLUME)			
S604	1-762-875-21	SWITCH, KEYBOARD (FILE SELECT)			
S605	1-762-875-21	SWITCH, KEYBOARD (SURROUND)			
S606	1-762-875-21	SWITCH, KEYBOARD (KARAOKE PON/MPX)			
S607	1-762-875-21	SWITCH, KEYBOARD (■)			
S608	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)			
S609	1-762-875-21	SWITCH, KEYBOARD (CLOCK/TIMER SET)			
S610	1-762-875-21	SWITCH, KEYBOARD (DISPLAY/DEMO)			
S614	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
S615	1-762-875-21	SWITCH, KEYBOARD (EDIT, DIRECTION)			
S616	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE, DOLBY NR)			
S617	1-762-875-21	SWITCH, KEYBOARD (REPEAT)			
S618	1-762-875-21	SWITCH, KEYBOARD (LOOP)			
S619	1-762-875-21	SWITCH, KEYBOARD (FLASH)			

PANEL | POWER AMP

Ref. No.	Part No.	Description	Remark
S620	1-762-875-21	SWITCH, KEYBOARD (NON-STOP)	
S621	1-762-875-21	SWITCH, KEYBOARD (–, ◀◀)	
S622	1-762-875-21	SWITCH, KEYBOARD (ENTER/NEXT)	
S623	1-762-875-21	SWITCH, KEYBOARD (+, ▶▶)	
S624	1-762-875-21	SWITCH, KEYBOARD (DBFB)	
S625	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S631	1-762-875-21	SWITCH, KEYBOARD (TUNER, BAND)	
S632	1-762-875-21	SWITCH, KEYBOARD (CD, ▶ II)	
S633	1-762-875-21	SWITCH, KEYBOARD (TAPE B, ▶)	
S634	1-762-875-21	SWITCH, KEYBOARD (TAPE B, ◀)	
S635	1-762-875-21	SWITCH, KEYBOARD (TAPE A, ▶)	
S636	1-762-875-21	SWITCH, KEYBOARD (TAPE A, ◀)	
S656	1-762-875-21	SWITCH, KEYBOARD (● REC)	
S657	1-762-875-21	SWITCH, KEYBOARD (II PAUSE)	
S658	1-762-875-21	SWITCH, KEYBOARD (HI-DUB)	
S659	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
		< VIBRATOR >	
X601	1-579-952-21	VIBRATOR, CERAMIC (8MHz)	
**********			
*	A-4407-080-A	POWER AMP BOARD, COMPLETE (RX66: US)	
*	A-4407-085-A	POWER AMP BOARD, COMPLETE (RX66: CND)	
*	A-4407-108-A	POWER AMP BOARD, COMPLETE (GRX5: E2, E3, EA3, MY, SP, HK, TW, SAF, MX, AUS)	
*	A-4407-127-A	POWER AMP BOARD, COMPLETE	(GRX5: EA4, TH)
*	A-4407-142-A	POWER AMP BOARD, COMPLETE (GRX5: IA)	
		**********	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C801	1-126-963-11	ELECT 4.7uF 20% 50V	(GRX5)
C801	1-128-582-11	ELECT 10uF 20% 100V	(RX66)
C802	1-162-286-31	CERAMIC 220PF 10% 50V	
C803	1-162-282-31	CERAMIC 100PF 10% 50V	
C804	1-126-967-11	ELECT 47uF 20% 50V	
C806	1-126-967-11	ELECT 47uF 20% 50V	
C807	1-126-965-11	ELECT 22uF 20% 50V	(GRX5)
C807	1-128-560-11	ELECT 22uF 20% 100V	(RX66)
C809	1-126-965-11	ELECT 22uF 20% 50V	(GRX5)
C809	1-128-560-11	ELECT 22uF 20% 100V	(RX66)
C810	1-164-159-11	CERAMIC 0.1uF 50V	
C811	1-136-495-11	FILM 0.068uF 5% 50V	
C812	1-136-495-11	FILM 0.068uF 5% 50V	
C813	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C841	1-130-777-00	FILM 0.1uF 10% 100V	(RX66: US)
C841	1-136-165-00	FILM 0.1uF 5% 50V	(GRX5/RX66: CND)
C842	1-117-750-11	ELECT 3300uF 20% 63V	(RX66: US)
C842	1-126-974-11	ELECT 3300uF 20% 50V	(GRX5/RX66: CND)
C843	1-126-923-11	ELECT 220uF 20% 10V	(RX66: CND)
C843	1-126-925-11	ELECT 470uF 20% 10V	(GRX5/RX66: US)
C851	1-126-963-11	ELECT 4.7uF 20% 50V	(GRX5)
C851	1-128-582-11	ELECT 10uF 20% 100V	(RX66)
C852	1-162-286-31	CERAMIC 220PF 10% 50V	
C853	1-162-282-31	CERAMIC 100PF 10% 50V	
C854	1-126-967-11	ELECT 47uF 20% 50V	
C856	1-126-967-11	ELECT 47uF 20% 50V	
C857	1-126-965-11	ELECT 22uF 20% 50V	(GRX5)
C857	1-128-560-11	ELECT 22uF 20% 100V	(RX66)
C861	1-136-495-11	FILM 0.068uF 5% 50V	
C862	1-136-495-11	FILM 0.068uF 5% 50V	
C891	1-130-777-00	FILM 0.1uF 10% 100V	(RX66: US)
C891	1-136-165-00	FILM 0.1uF 5% 50V	(GRX5/RX66: CND)
C892	1-117-750-11	ELECT 3300uF 20% 63V	(RX66: US)
C892	1-126-974-11	ELECT 3300uF 20% 50V	(GRX5/RX66: CND)
		< CONNECTOR >	
CN801	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P	
		< DIODE >	
D800	8-719-510-68	DIODE D5SBA20F01	
D801	8-719-911-19	DIODE 1SS119	
D841	8-719-911-19	DIODE 1SS119	
D842	8-719-911-19	DIODE 1SS119	
D843	8-719-911-19	DIODE 1SS119	
D851	8-719-911-19	DIODE 1SS119	
		< IC >	
IC801	8-749-900-34	IC STK-4182MK2 (GRX5)	
IC801	8-749-900-78	IC STK-4192MK2 (RX66: US)	
IC801	8-749-920-10	IC STK-4172MK2 (RX66: CND)	
		< TRANSISTOR >	
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
		< RESISTOR >	
R801	1-249-417-11	CARBON 1K 5% 1/4W	
R802	1-249-437-11	CARBON 47K 5% 1/4W	
R803	1-249-414-11	CARBON 560 5% 1/4W	(RX66: US)
R803	1-249-415-11	CARBON 680 5% 1/4W	(GRX5)
R804	1-249-437-11	CARBON 47K 5% 1/4W	
R805	1-260-105-11	CARBON 3.3K 5% 1/2W	
R806	1-260-105-11	CARBON 3.3K 5% 1/2W	

Ref. No.	Part No.	Description			Remark
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R808	1-220-755-11	METAL	0.22	10%	2W F
R809	1-260-076-11	CARBON	10	5%	1/2W
R811	1-249-417-11	CARBON	1K	5%	1/4W
R812	1-249-431-11	CARBON	15K	5%	1/4W
R813	1-249-441-11	CARBON	100K	5%	1/4W
R814	1-260-099-11	CARBON	1K	5%	1/2W (GRX5/RX66: CND)
R814	1-260-103-11	CARBON	2.2K	5%	1/2W (RX66: US)
R816	1-260-099-11	CARBON	1K	5%	1/2W (GRX5/RX66: CND)
R816	1-260-103-11	CARBON	2.2K	5%	1/2W (RX66: US)
⚠R820	1-202-972-61	FUSIBLE	1	5%	1/4W F
R841	1-247-843-11	CARBON	3.3K	5%	1/4W (RX66: US)
R841	1-249-421-11	CARBON	2.2K	5%	1/4W (GRX5)
R841	1-249-425-11	CARBON	4.7K	5%	1/4W (RX66: CND)
R842	1-249-425-11	CARBON	4.7K	5%	1/4W (GRX5/RX66: US)
R842	1-249-427-11	CARBON	6.8K	5%	1/4W (RX66: CND)
R843	1-247-882-11	CARBON	130K	5%	1/4W (GRX5)
R843	1-247-885-00	CARBON	180K	5%	1/4W (RX66: CND)
R843	1-247-886-11	CARBON	200K	5%	1/4W (RX66: US)
R844	1-247-843-11	CARBON	3.3K	5%	1/4W (RX66: CND)
R844	1-249-417-11	CARBON	1K	5%	1/4W (GRX5)
R844	1-249-429-11	CARBON	10K	5%	1/4W (RX66: US)
R851	1-249-417-11	CARBON	1K	5%	1/4W
R852	1-249-437-11	CARBON	47K	5%	1/4W
R853	1-249-414-11	CARBON	560	5%	1/4W (RX66: US)
R853	1-249-415-11	CARBON	680	5%	1/4W (GRX5/RX66: CND)
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-260-105-11	CARBON	3.3K	5%	1/2W
R856	1-260-105-11	CARBON	3.3K	5%	1/2W
⚠R857	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R858	1-220-755-11	METAL	0.22	10%	2W F
R859	1-260-076-11	CARBON	10	5%	1/2W
R861	1-249-417-11	CARBON	1K	5%	1/4W
R862	1-249-431-11	CARBON	15K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W

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*	1-658-576-11	SENSOR BOARD
		**********
		< IC >
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W
R702	1-249-407-11	CARBON	150	5%	1/4W

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*	1-668-208-11	TRANSFORMER BOARD
		**********
	1-533-217-31	HOLDER, FUSE
		< CONNECTOR >
CN11	1-564-523-11	PLUG, CONNECTOR 8P
* CN12	1-564-518-11	PLUG, CONNECTOR 3P
CN13	1-564-321-00	PIN, CONNECTOR 2P
		< FUSE >
⚠F11	1-532-502-31	FUSE (T1.25AL/250V) (EXCEPT GRX5: MX/RX66)
⚠F12	1-532-464-31	FUSE (T2.5AL/250V) (GRX5: E2, E3, EA3, MY, SP, IA, HK, TW, SAF, MX)
⚠F12	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA. 5) (5A/125V) (RX66: US)
⚠F12	1-533-690-11	FUSE, GLASS CYLINDRICAL (DIA. 5) (3.15A/125V) (RX66: US)
		< RESISTOR >
⚠R11	1-219-120-11	FUSIBLE 0.15 5% 1/4W F (GRX5)
⚠R11	1-219-121-11	FUSIBLE 0.22 5% 1/4W F (RX66)
⚠R12	1-219-120-11	FUSIBLE 0.15 5% 1/4W F (GRX5)
⚠R12	1-219-121-11	FUSIBLE 0.22 5% 1/4W F (RX66)
⚠R13	1-219-120-11	FUSIBLE 0.15 5% 1/4W F (GRX5)
⚠R13	1-219-121-11	FUSIBLE 0.22 5% 1/4W F (RX66)
⚠R14	1-219-120-11	FUSIBLE 0.15 5% 1/4W F (GRX5)
⚠R14	1-219-121-11	FUSIBLE 0.22 5% 1/4W F (RX66)
R15	1-202-725-00	SOLID 3.3M 10% 1/2W (RX66)
		< SWITCH >
⚠S11	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (POWER SELECT) (GRX5: E2, E3, EA3, MY, SP, IA, HK, TW, SAF)
		< TRANSFORMER >
⚠T11	1-431-655-11	TRANSFORMER, POWER (RX66: US)
⚠T11	1-431-656-11	TRANSFORMER, POWER (RX66: CND)
⚠T11	1-431-658-11	TRANSFORMER, POWER (GRX5)

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		MISCELLANEOUS
		**********
6	1-769-984-11	WIRE (FLAT TYPE) (13 CORE) (23 CM)
10	1-773-048-11	WIRE (FLAT TYPE) (17 CORE)
11	1-773-025-11	WIRE (FLAT TYPE) (15 CORE) (33 CM)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
106	1-783-570-11	WIRE (FLAT TYPE) (19 CORE)	
108	1-769-976-11	WIRE (FLAT TYPE) (13 CORE) (14 CM) (GRX5: E2, EA4, TH, MX, AUS/RX66)	
108	1-773-008-11	WIRE (FLAT TYPE) (15 CORE) (14 CM) (GRX5: E3, EA3, MY, SP, IA, HK, TW, SAF)	
109	1-233-544-11	ENCAPSULATED COMPONENT (RX66)	
109	1-233-545-11	ENCAPSULATED COMPONENT (GRX5: E2, EA4, TH, MX, AUS)	
109	1-233-546-11	ENCAPSULATED COMPONENT (GRX5: E3, EA3, MY, SP, IA, HK, TW, SAF)	
⚠114	1-575-651-11	CORD, POWER (GRX5: EA3, EA4, MY, SP, HK, TW, SAF)	
⚠114	1-575-653-11	CORD, POWER (GRX5: E2, E3, IA, TH, MX)	
⚠114	1-690-608-11	CORD, POWER (GRX5: AUS)	
⚠114	1-690-609-21	CORD, POWER (RX66)	
⚠115	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX5: E3, IA)	
⚠115	1-569-008-11	ADAPTOR, CONVERSION 2P (GRX5: EA3, MY, SP, TW, SAF)	
⚠115	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (GRX5: HK)	
* 257	1-452-879-11	MAGNET (CDM38L-5BD29AL)	
257	1-452-925-21	MAGNET ASSY (CDM38LH-5BD29AL)	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
⚠301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR1)	
HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR1)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR1)	
HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR1)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
⚠T11	1-431-655-11	TRANSFORMER, POWER (RX66: US)	
⚠T11	1-431-656-11	TRANSFORMER, POWER (RX66: CND)	
⚠T11	1-431-658-11	TRANSFORMER, POWER (GRX5)	

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HARDWARE LIST
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#1	7-685-872-09	SCREW +BVTT 3X8 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-871-01	SCREW +BVTT 3X6 (S)	
#6	7-685-880-09	SCREW +BVTT 4X6 (S)	
#7	7-685-851-04	SCREW +BVTT 2X4 (S)	
#8	7-621-775-10	SCREW +B 2.6X4	
#9	7-621-255-15	SCREW +P 2X3	
#10	7-685-850-04	SCREW +BVTT 2X3 (S)	
#11	7-628-254-15	SCREW +PS 2.6X6	
#12	7-628-254-50	SCREW +PS 2.6X16	

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98C057043-1
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Published by General Engineering Dept. (Shibaura)